## 1AC – Cold Fusion

### ROTB

#### The state is inevitable- speaking the language of power through policymaking is the only way to create social change in debate.

Coverstone 5 Alan Coverstone (masters in communication from Wake Forest, longtime debate coach) “Acting on Activism: Realizing the Vision of Debate with Pro-social Impact” Paper presented at the National Communication Association Annual Conference November 17th 2005 JW 11/18/15

An important concern emerges when Mitchell describes reflexive fiat as a contest strategy capable of “eschewing the power to directly control external actors” (1998b, p. 20). Describing debates about what our government should do as attempts to control outside actors is debilitating and disempowering. Control of the US government is exactly what an active, participatory citizenry is supposed to be all about. After all, if democracy means anything, it means that citizens not only have the right, they also bear the obligation to discuss and debate what the government should be doing. Absent that discussion and debate, much of the motivation for personal political activism is also lost. Those who have co-opted Mitchell’s argument for individual advocacy often quickly respond that nothing we do in a debate round can actually change government policy, and unfortunately, an entire generation of debaters has now swallowed this assertion as an article of faith. The best most will muster is, “Of course not, but you don’t either!” The assertion that nothing we do in debate has any impact on government policy is one that carries the potential to undermine Mitchell’s entire project. If there is nothing we can do in a debate round to change government policy, then we are left with precious little in the way of pro-social options for addressing problems we face. At best, we can pursue some Pilot-like hand washing that can purify us as individuals through quixotic activism but offer little to society as a whole. It is very important to note that Mitchell (1998b) tries carefully to limit and bound his notion of reflexive fiat by maintaining that because it “views fiat as a concrete course of action, it is bounded by the limits of pragmatism” (p. 20). Pursued properly, the debates that Mitchell would like to see are those in which the relative efficacy of concrete political strategies for pro-social change is debated. In a few noteworthy examples, this approach has been employed successfully, and I must say that I have thoroughly enjoyed judging and coaching those debates. The students in my program have learned to stretch their understanding of their role in the political process because of the experience. Therefore, those who say I am opposed to Mitchell’s goals here should take care at such a blanket assertion. However, contest debate teaches students to combine personal experience with the language of political power. Powerful personal narratives unconnected to political power are regularly co-opted by those who do learn the language of power. One need look no further than the annual state of the Union Address where personal story after personal story is used to support the political agenda of those in power. The so-called role-playing that public policy contest debates encourage promotes active learning of the vocabulary and levers of power in America. Imagining the ability to use our own arguments to influence government action is one of the great virtues of academic debate. Gerald Graff (2003) analyzed the decline of argumentation in academic discourse and found a source of student antipathy to public argument in an interesting place. I’m up against…their aversion to the role of public spokesperson that formal writing presupposes. It’s as if such students can’t imagine any rewards for being a public actor or even imagining themselves in such a role. This lack of interest in the public sphere may in turn reflect a loss of confidence in the possibility that the arguments we make in public will have an effect on the world. Today’s students’ lack of faith in the power of persuasion reflects the waning of the ideal of civic participation that led educators for centuries to place rhetorical and argumentative training at the center of the school and college curriculum. (Graff, 2003, p. 57) The power to imagine public advocacy that actually makes a difference is one of the great virtues of the traditional notion of fiat that critics deride as mere simulation. Simulation of success in the public realm is far more empowering to students than completely abandoning all notions of personal power in the face of governmental hegemony by teaching students that “nothing they can do in a contest debate can ever make any difference in public policy.” Contest debating is well suited to rewarding public activism if it stops accepting as an article of faith that personal agency is somehow undermined by the so-called role playing in debate. Debate is role-playing whether we imagine government action or imagine individual action. Imagining myself starting a socialist revolution in America is no less of a fantasy than imagining myself making a difference on Capitol Hill. Furthermore, both fantasies influenced my personal and political development virtually ensuring a life of active, pro-social, political participation. Neither fantasy reduced the likelihood that I would spend my life trying to make the difference I imagined. One fantasy actually does make a greater difference: the one that speaks the language of political power. The other fantasy disables action by making one a laughingstock to those who wield the language of power. Fantasy motivates and role-playing trains through visualization. Until we can imagine it, we cannot really do it. Role-playing without question teaches students to be comfortable with the language of power, and that language paves the way for genuine and effective political activism. Debates over the relative efficacy of political strategies for pro-social change must confront governmental power at some point. There is a fallacy in arguing that movements represent a better political strategy than voting and person-to-person advocacy. Sure, a full-scale movement would be better than the limited voice I have as a participating citizen going from door to door in a campaign, but so would full-scale government action. Unfortunately, the gap between my individual decision to pursue movement politics and the emergence of a full-scale movement is at least as great as the gap between my vote and democratic change. They both represent utopian fiat. Invocation of Mitchell to support utopian movement fiat is simply not supported by his work, and too often, such invocation discourages the concrete actions he argues for in favor of the personal rejectionism that under girds the political cynicism that is a fundamental cause of voter and participatory abstention in America today.

### Framework

#### Phenomenal introspection is reliable and proves that util is objectively valid.

Sinhababu Neil (National University of Singapore) “The epistemic argument for hedonism” [http://philpapers.org/archive/SINTEA-3 accessed 2-4-16](http://philpapers.org/archive/SINTEA-3%20accessed%202-4-16) JW

The Odyssey's treatment of these events demonstrates how dramatically ancient Greek moral intuitions differ from ours. It doesn't dwell on the brutality of Telemachus, who killed twelve women for the trivial reasons he states, making them suffer as they die. While gods and men seek vengeance for other great and small offenses in the Odyssey, no one finds this mass murder worth avenging. It's a minor event in the denouement to a happy ending in which Odysseus (who first proposes killing the women) returns home and Telemachus becomes a man. That the[y] Greeks could so easily regard these murders as part of a happy ending for heroes shows how deeply we disagree with them. It's as if we gave them a trolley problem with the 12 women on the side track and no one on the main track, and they judged it permissible for Telemachus to turn the trolley and kill them all. And this isn't some esoteric text of a despised or short-lived sect, but a central literary work of a long-lived and influential culture. Human history offers similarly striking examples of disagreement on a variety of topics. These include sexual morality; the treatment of animals; the treatment of other ethnicities, families, and social classes; the consumption of intoxicating substances; whether and how one may take vengeance; slavery; whether public celebrations are acceptable; and gender roles.12 Moral obligations to commit genocide were accepted not only by some 20th century Germans, but by much of the ancient world, including the culture that gave us the Old Testament. One can only view the human past and much of the present with horror at the depth of human moral error and the harm that has resulted. One might think to explain away much of this disagreement as the result of differing nonmoral beliefs. Those who disagree about nonmoral issues may disagree on the moral rightness of a particular action despite agreeing on the fundamental moral issues. For example, they may agree that healing the sick is right, but disagree about whether a particular medicine will heal or harm. This disagreement about whether to prescribe the medicine won't be fundamentally about morality, and won't support the argument from disagreement. I don't think the moral disagreements listed above are explained by differences in nonmoral belief. This isn't because sexists, racists, and bigots share the nonmoral views of those enlightened by feminism and other egalitarian doctrines – they don't. Rather, their differing views on nonmoral topics often are rationalizations of moral beliefs that fundamentally disagree with ours.13 Those whose fundamental moral judgments include commitments to the authority of men over women, or of one race over another, will easily accept descriptive psychological views that attribute less intelligence or rationality to women or the subjugated race.14 Moral disagreement supposedly arising from moral views in religious texts is similar. Given how rich and many-stranded most religious texts are, interpretive claims about their moral teachings often tell us more about the antecedent moral beliefs of the interpreter than about the text itself. This is why the same texts are interpreted to support so many different moral views. Similar phenomena occur with most moral beliefs. Environmentalists who value a lovely patch of wilderness will easily believe that its destruction will cause disaster, those who feel justified in eating meat will easily believe that the animals they eat don't suffer greatly, and libertarians who feel that redistributing wealth is unjust will easily believe that it raises unemployment. We shouldn't assume that differing moral beliefs on practical questions are caused by fundamental moral agreement combined with differing nonmoral beliefs. Often the differing nonmoral beliefs are caused by fundamental moral disagreement. As we have no precise way of quantifying the breadth of disagreement or determining its epistemic consequences, it's unclear exactly how much disagreement the argument requires. While this makes the argument difficult to evaluate, it shouldn't stop us from proceeding, as we have to use the unclear notion of widespread disagreement in ordinary epistemic practice. If 99.9% of botanists agree on some issue about plants, non-botanists should defer to their authority and believe as most of them do. But if disagreement between botanists is suitably widespread, non-botanists should remain agnostic. A more precise and systematic account of when disagreement is widespread enough to generate particular epistemic consequences would be very helpful. Until we have one, we must employ the unclear notion of widespread disagreement, or some similar notion, throughout epistemic practice. Against the background of widespread moral disagreement, there may still be universal or near-universal agreement on some moral questions. For example, perhaps all cultures agree that one should provide for one’s elderly parents, even though they generally disagree elsewhere. How do these narrow areas of moral agreement affect the argument? This all depends on whether the narrow agreement is reliably or unreliably caused. If narrow agreement results from a reliable process of belief-formation, it lets us avoid error, defeating the argument from disagreement. But widely accepted moral beliefs may result from widely prevailing unreliable processes leading everyone to the same errors. There's no special pressure to explain agreement in terms of reliable processes when disagreement is widespread. Explaining agreement in terms of reliable processes is preferable when we have some reason to think that the processes involved are generally reliable. Then we would want to understand cases of agreement in line with the general reliability of processes producing moral belief. But if disagreement is widespread, error is too. Since moral beliefs are so often false, invoking unreliable processes to explain them is better than invoking reliable ones. The next two sections discuss this in more detail. We have many plausible explanations of narrow agreement on which moral beliefs are unreliably caused. Evolutionary and sociological explanations of why particular moral beliefs are widely accepted often invoke unreliable mechanisms.15 On these explanations, we agree because some moral beliefs were so important for reproductive fitness that natural selection made them innate in us, or so important to the interests controlling moral education in each culture that they were inculcated in everyone. For example, parents' influence over their children's moral education would explain agreement that one should provide for one's elderly parents. Plausible normative ethical theories won't systematically connect these evolutionary and sociological explanations with moral facts. If disagreement and error are widespread, they'll provide useful ways to reconcile unusual cases of widespread agreement with the general unreliability of the processes producing moral belief. 1.3 If there is widespread error about a topic, we should retain only those beliefs about it formed through reliable processes Now I'll defend 3. First I'll show how the falsity of others' beliefs undermines one's own belief. Then I'll clarify the notion of a reliable process. I'll consider a modification to 3 that epistemic internalists might favor, and show that the argument accommodates it. I'll illustrate 3's plausibility by considering cases where it correctly guides our reasoning. Finally, I'll show how 3 is grounded in the intuitive response to grave moral error. First, a simple objection: “Why should I care whether other people have false beliefs? That's a fact about other people, and not about me. Even if most people are wrong about some topic, I may be one of the few right ones, even if there's no apparent reason to think that my way of forming beliefs is any more reliable.” While widespread error leaves open the possibility that one has true beliefs, it reduces the probability that my beliefs are true. Consider a parallel case. I have no direct evidence that I have an appendix, but I know that previous investigations have revealed appendixes in people. So induction suggests that I have an appendix. Similarly, I know on the basis of 1 and 2 that people's moral beliefs are, in general, rife with error. So even if I have no direct evidence of error in my moral beliefs, induction suggests that they are rife with error as well. 3 invokes the reliability of the processes that produce our beliefs. Assessing processes of belief-formation for reliability is an important part of our epistemic practices. If someone tells me that my belief is entirely produced by wishful thinking, I can't simply accept that and maintain the belief. Knowing that wishful thinking is unreliable, I must either deny that my belief is entirely caused by wishful thinking or abandon the belief. But if someone tells me that my belief is entirely the result of visual perception, I'll maintain it, assuming that it concerns sizable nearby objects or something else about which visual perception is reliable. While providing precise criteria for individuating processes of belief-formation is hard, as the literature on the generality problem for reliabilism attests, individuating them somehow is indispensable to our epistemic practices.16 Following Alvin Goldman's remark that “It is clear that our ordinary thought about process types slices them broadly” (346), I'll treat cognitive process types like wishful thinking and visual perception as appropriately broad.17 Trusting particular people and texts, meanwhile, are too narrow. Cognitive science may eventually help us better individuate cognitive process types for the purposes of reliability assessments and discover which processes produce which beliefs. Epistemic internalists might reject 3 as stated, claiming that it isn't widespread error that would justify giving up our beliefs, but our having reason to believe that there is widespread error. They might also claim that our justification for believing the outputs of some process depends not on its reliability, but on what we have reason to believe about its reliability. The argument will still go forward if 3 is modified to suit internalist tastes, changing its antecedent to “If we have reason to believe that there is widespread error about a topic” or changing its consequent to “we should retain only those beliefs about it that we have reason to believe were formed through reliable processes.” While 3's antecedent might itself seem unnecessary on the original formulation, it's required for 3 to remain plausible on the internalist modification. Requiring us to have reason to believe that any of our belief-formation processes are reliable before retaining their outputs might lead to skepticism. The antecedent limits the scope of the requirement to cases of widespread error, averting general skeptical conclusions. The argument will still attain its conclusion under these modifications. Successfully defending the premises of the argument and deriving widespread error (5) and unreliability (7) gives those of us who have heard the defense and derivation reason to believe 5 and 7. This allows us to derive 8. (Thus the pronoun 'we' in 3, 6, and 8.) 3 describes the right response to widespread error in many actual cases. Someone in the 12th century, especially upon hearing the disagreeing views of many cultures regarding the origins of the universe, would do well to recognize that error on this topic was widespread and retreat to agnosticism about it. Only when modern astrophysics extended reliable empirical methods to cosmology would it be rational to move forward from agnosticism and accept a particular account of how the universe began. Similarly, disagreement about which stocks will perform better than average is widespread among investors, suggesting that one's beliefs on the matter have a high likelihood of error. It's wise to remain agnostic about the stock market without an unusually reliable way of forming beliefs – for example, the sort of secret insider information that it's illegal to trade on. 3 permits us to hold onto our moral beliefs in individual cases of moral disagreement, suggesting skeptical conclusions only when moral disagreement is widespread. When we consider a single culture's abhorrent moral views, like the Greeks' acceptance of Telemachus and Odysseus' murders of the servant women, we don't think that maybe the Greeks were right to see nothing wrong and we should reconsider our outrage. Instead, we're horrified by their grave moral error. I think this is the right response. We're similarly horrified by the moral errors of Hindus who burned widows on their husbands' funeral pyres, American Southerners who supported slavery and segregation, our contemporaries who condemn homosexuality, and countless others. The sheer number of cases like this requires us to regard moral error as a pervasive feature of the human condition. Humans typically form moral beliefs through unreliable processes and have appendixes. We are humans, so this should reduce our confidence in our moral judgments. The prevalence of error in a world full of moral disagreement demonstrates how bad humans are at forming true moral beliefs, undermining our own moral beliefs. Knowing that unreliable processes so often lead humans to their moral beliefs, we'll require our moral beliefs to issue from reliable processes. 1.4 If there is widespread error about morality, there are no reliable processes for forming moral beliefs A reliable process for forming moral beliefs would avert skeptical conclusions. I'll consider several processes and argue that they don't help us escape moral skepticism. Ordinary moral intuition, whether it involves a special rational faculty or our emotional responses, is shown to be unreliable by the existence of widespread error. The argument from disagreement either prevents reflective equilibrium from generating moral conclusions or undermines it. Conceptual analysis is reliable, but delivers the wrong kind of knowledge to avert skepticism. If all our processes for forming moral beliefs are unreliable, moral skepticism looms. 4 is false only because of one process – phenomenal introspection, which lets us know of the goodness of pleasure, as the second half of this paper will discuss. Widespread error guarantees the unreliability of any process by which we form all or almost all of our moral beliefs. While widespread error allows some processes responsible for a small share of our moral beliefs to predominantly create true beliefs, it implies that any process generating a very large share of moral belief must be highly error-prone. Since the process produced so many of our moral beliefs, and so many of them are erroneous, it must be responsible for a large share of the error. If more of people's moral beliefs were true, things would be otherwise. Widespread truth would support the reliability of any process that produced most or all of our moral beliefs, since that process would be responsible for so much true belief. But given widespread error, ordinary moral intuition must be unreliable. This point provides a forceful response to Moorean opponents who insist that we can't give up the reliability of a process by which we form all or nearly all of our beliefs on an important topic, since this would permit counterintuitive skeptical conclusions. Even if this Moorean response helps against external world skeptics who employ counterfactual thought experiments involving brains in vats, it doesn't help against moral skeptics who use 1 and 2 to derive widespread actual error. Once we accept that widespread error actually obtains, a great deal of human moral knowledge has already vanished. Insisting on the reliability of the process then seems implausible and pointless. I'll briefly consider two conceptions of moral intuition – as a special rational faculty by which we grasp non-natural moral facts, and as a process by which our emotions lead us to form moral beliefs – and show how widespread error guarantees their unreliability. Some philosophers regard moral intuition as involving a special rational faculty that lets us know non-natural moral facts.18 They argue that knowledge on many topics including mathematics, logic, and modality involves this rational faculty, so moral knowledge might operate similarly. This suggests a way for them to defend the reliability of moral intuition in the face of widespread error: if intuition is reliable about these other things, its overall reliability across moral and nonmoral areas allows us to reliably form moral beliefs by using it. This defense won't work. When an epistemic process is manifestly unreliable on some topic, as widespread error shows any process responsible for most of our moral beliefs to be, the reliability of that process elsewhere won't save it on that topic. Even if testimony is reliable, this doesn't imply the reliability of compulsive gamblers' testimony about the next spin of the roulette wheel. Even if intuition remains reliable elsewhere, widespread disagreement still renders it unreliable in ethics. I see ordinary moral intuition as a process of emotional perception in which our feelings cause us to form moral beliefs.19 Just as visual experiences of color cause beliefs about the colors of surfaces, emotional experiences cause moral beliefs. Pleasant feelings like approval, admiration, or hope in considering actions, persons, or states of affairs lead us to believe they are right, virtuous or good. Unpleasant emotions like guilt, disgust, or horror in considering actions, persons, or states of affairs lead us to believe they are wrong, vicious, or bad. We might have regarded this as a reliable way to know about moral facts, just as visual perception is a reliable way to know about color, if not for widespread error. But because of widespread error, we can only see it as an unreliable process responsible for our dismal epistemic situation. Reflective equilibrium is the prevailing methodology in normative ethics today. It involves modifying our beliefs about particular cases and general principles to make them cohere. Whether or not nonmoral propositions like the premises of the argument from disagreement are admissible in reflective equilibrium, widespread error prevents reflective equilibrium from reliably generating a true moral theory, as I'll explain. If the premises of the argument from disagreement are admitted into reflective equilibrium, the argument can be reconstructed there, and reflective equilibrium will dictate that we give up all of our moral beliefs. To avoid this conclusion, the premises of the argument from disagreement would have to be revised away on moral grounds. These premises are a metaethical claim about the objectivity of morality which seems to be a conceptual truth, an anthropological claim about the existence of disagreement, a very general epistemic claim about when we should revise our beliefs, and a more empirically grounded epistemic claim about our processes of belief-formation and their reliability. While reflective equilibrium may move us to revise substantive moral beliefs in view of other substantive moral beliefs, claims of these other kinds are less amenable to such revision. Unless ambitious arguments for revising these nonmoral claims away succeed, we must follow the argument to its conclusion and accept that reflective equilibrium makes moral skeptics of us.20 If only moral principles and judgments are considered in reflective equilibrium, it won't make moral skeptics of us, but the argument from disagreement will undermine its conclusions. The argument forces us to give up the pre-existing moral beliefs against which we test various moral propositions in reflective equilibrium. While we may be justified in believing something because it coheres with our other beliefs, this justification goes away once we see that those beliefs should be abandoned. Coherence with beliefs that we know we should give up doesn't confer justification. Now I'll consider conceptual analysis. It can produce moral beliefs about conceptual truths – for example, that the moral supervenes on the nonmoral, and that morality is objective. It also may provide judgments about relations between different moral concepts – perhaps, that if the only moral difference between two actions is that one would produce morally better consequences than the other, doing what produces better consequences is right. I regard conceptual analysis as reliable, so that the argument from disagreement does not force us to give up the beliefs about morality it produces. Unfortunately, if analytic naturalism is false, as has been widely held in metaethics since G. E. Moore, conceptual analysis won't provide all the knowledge we need to build a normative ethical theory.21 Even when it relates moral concepts like goodness and rightness to each other, it doesn't tell us that anything is good or right to begin with. That's the knowledge we need to avoid moral skepticism. So far I've argued that our epistemic and anthropological situation, combined with plausible metaethical and epistemic principles, forces us to abandon our moral beliefs. But if a reliable process of moral belief-formation exists, 4 is false, and we can answer the moral skeptic. The rest of this paper discusses the only reliable process I know of. 2.1 Phenomenal introspection reveals pleasure's goodness Phenomenal introspection, a reliable way of forming true beliefs about our experiences, produces the belief that pleasure is good. Even as our other processes of moral belief-formation prove unreliable, it provides reliable access to pleasure's goodness, justifying the positive claims of hedonism. This section clarifies what phenomenal introspection and pleasure are and explains how phenomenal introspection provides reliable access to pleasure's value. Section 2.2 argues that pleasure's goodness is genuine moral value, rather than value of some other kind. In phenomenal introspection we consider our subjective experience, or phenomenology, and determine what it's like. Phenomenal introspection can be reliable while dreaming or hallucinating, as long as we can determine what the dreams or hallucinations are like. By itself, phenomenal introspection doesn't produce beliefs about things outside experience, or about relations between our experiences and non-experiential things. So it doesn't produce judgments about the rightness of actions or the goodness of non-experiential things. It can only tell us about the intrinsic properties of experience itself. Phenomenal introspection is generally reliable, even if mistakes about immediate experience are possible. Experience is rich in detail, so one could get some of the details wrong in belief. Under adverse conditions involving false expectations, misleading evidence about what one's experiences will be, or extreme emotional states that disrupt belief-formation, larger errors are possible. Paradigmatically reliable processes like vision share these failings. Vision sometimes produces false beliefs under adverse conditions, or when we're looking at complex things. Still, it's so reliable as to be indispensible in ordinary life. Regarding phenomenal introspection as unreliable is about as radical as skepticism about the reliability of vision. While contemporary psychologists reject introspection into one's motivations and other psychological causal processes as unreliable, phenomenal introspection fares better. Daniel Kahneman, for example, writes that “experienced utility is best measured by moment-based methods that assess the experience of the present.”22 Even those most skeptical about the reliability of phenomenal introspection, like Eric Schwitzgebel, concede that we can reliably introspect whether we are in serious pain.23 Then we should be able to introspectively determine what pain is like. So I'll assume the reliability of phenomenal introspection. One can form a variety of beliefs using phenomenal introspection. For example, one can believe that one is having sound experiences of particular noises and visual experiences of different shades of color. When looking at a lemon and considering the phenomenal states that are yellow experiences, one can form some beliefs about their intrinsic features – for example, that they're bright experiences. And when considering experiences of pleasure, one can make some judgments about their intrinsic features – for example, that they're good experiences. Just as one can look inward at one's experience of lemon yellow and recognize its brightness, one can look inward at one's experience of pleasure and recognize its goodness.24 When I consider a situation of increasing pleasure, I can form the belief that things are better than they were before, just as I form the belief that there's more brightness in my visual field as lemon yellow replaces black. And when I suddenly experience pain, I can form the belief that things are worse in my experience than they were before. Having pleasure consists in one's experience having a positive hedonic tone. Without descending into metaphor, it's hard to give a further account of what pleasure is like than to say that when one has it, one feels good. As Aaron Smuts writes in defending the view of pleasure as hedonic tone, “to 'feel good' is about as close to an experiential primitive as we get.” 25 Fred Feldman sees pleasure as fundamentally an attitude rather than a hedonic tone.26 But as long as hedonic tones are real components of experience, phenomenal introspection will reveal pleasure's goodness. Opponents of the hedonic tone account of pleasure usually concede that hedonic tones exist, as Feldman seems to in discussing “sensory pleasures,” which he thinks his view helps us understand. Even on his view of pleasure, phenomenal introspection can produce the belief that some hedonic tones are good while others are bad. There are many different kinds of pleasant experiences. There are sensory pleasures, like the pleasure of tasting delicious food, receiving a massage, or resting your tired limbs in a soft bed after a hard day. There are the pleasures of seeing that our desires are satisfied, like the pleasure of winning a game, getting a promotion, or seeing a friend succeed. These experiences differ in many ways, just as the experiences of looking at lemons and the sky on a sunny day differ. It's easy to see the appeal of Feldman's view that pleasures “have just about nothing in common phenomenologically” (79). But just as our experiences in looking at lemons and the sky on a sunny day have brightness in common, pleasant experiences all have “a certain common quality – feeling good,” as Roger Crisp argues (109).27 As the analogy with brightness suggests, hedonic tone is phenomenologically very thin, and usually mixed with a variety of other experiences.28 Pleasure of any kind feels good, and displeasure of any kind feels bad. These feelings may or may not have bodily location or be combined with other sensory states like warmth or pressure. “Pleasure” and “displeasure” mean these thin phenomenal states of feeling good and feeling bad. As Joseph Mendola writes, “the pleasantness of physical pleasure is a kind of hedonic value, a single homogenous sensory property, differing merely in intensity as well as in extent and duration, which is yet a kind of goodness” (442).29 What if Feldman is right and hedonic states feel good in fundamentally different ways? Then phenomenal introspection suggests a pluralist variety of hedonism. Each fundamental flavor of pleasure will have a fundamentally different kind of goodness, as phenomenal introspection more accurate than mine will reveal. This isn't my view, but I suggest it to those convinced that hedonic tones are fundamentally heterogenous. If phenomenal introspection reliably informs us that pleasure is good, how can anyone believe that their pleasures are bad? Other processes of moral belief-formation are responsible for these beliefs. Someone who feels disgust or guilt about sex may not only regard sex as immoral, but the pleasure it produces as bad. Even if phenomenal introspection on sexual pleasure disposes one to believe that it's good, stronger negative emotional responses to it may more strongly dispose one to believe that it's bad, following the emotional perception model suggested in section 1.4. Explaining disagreement about pleasure's value in terms of other processes lets hedonists maintain that phenomenal introspection univocally supports pleasure's goodness. As long as negative judgments of pleasure come from unreliable processes instead of phenomenal introspection, the argument from disagreement eliminates them. The parallel between yellow’s brightness and pleasure’s goodness demonstrates the objectivity of the value detected in phenomenal introspection. Just as anyone's yellow experiences objectively are bright experiences, anyone's pleasure objectively is a good experience.30 While one's phenomenology is often called one's “subjective experience”, facts about it are still objective. “Subjective” in “subjective experience” means “internal to the mind”, not “ontologically dependent on attitudes towards it.” My yellow-experiences objectively have brightness. Anyone who thought my yellow-experiences lacked brightness would be mistaken. Pleasure similarly is objectively good. It's true that anyone's pleasure is good. Anyone who denies this is mistaken. As Mendola writes, the value detected in phenomenal introspection is “a plausible candidate for objective value” (712). Even though phenomenal introspection only tells me about my own phenomenal states, I can know that others' pleasure is good. Of course, I can't phenomenally introspect their pleasures, just as I can't phenomenally introspect pleasures that I'll experience next year. But if I consider my experiences of lemon yellow and ask what it would be like if others had the same experiences, I must think that they would be having bright experiences. Similarly, if in a pleasant moment I consider what it's like for others to have exactly the experience I'm having, I must think that they're having good experiences. If they have exactly the same experiences I'm having, their experiences will have exactly the same intrinsic properties as mine. This is also how I know that if I have the same experience in the future, it'll have the same intrinsic properties. Even though the only pleasure I can introspect is mine now, I should believe that others' pleasures and my pleasures at other times are good, just as I should believe that yellow experienced by others and myself at other times is bright. My argument thus favors the kind of universal hedonism that supports utilitarianism, not egoistic hedonism.

#### This outweighs other frameworks.

Sinhababu 2 Neil (National University of Singapore) “The epistemic argument for hedonism” [http://philpapers.org/archive/SINTEA-3 accessed 2-4-16](http://philpapers.org/archive/SINTEA-3%20accessed%202-4-16) JW

A full moral theory including accounts of rightness and virtue can be built from the deliverances of phenomenal introspection combined with conceptual analysis. Shaver, Kagan, and I suggest that phenomenal introspection reveals pleasure to have a kind of goodness that makes states of affairs better in consequentialist moral theories. A state of affairs thus is pro tanto better as there is more pleasure and pro tanto worse as there is more displeasure. More pleasure makes states of affairs better. Conceptual analysis here connects the concept of goodness with the concept of a better state of affairs, and with other moral concepts like rightness and virtue. Even if conceptual analysis cannot connect the moral and the nonmoral as a full normative ethical theory requires, it reveals connections between our moral concepts. For example, the following propositions or something like them seem to be conceptual truths: states of affairs are pro tanto better insofar as they include more goodness, an action is pro tanto better insofar as it causally contributes to better states of affairs, and agents are pro tanto more virtuous insofar as they desire that better states of affairs obtain. These putative conceptual truths about pro tanto relations do not contradict strong forms of deontology, as they allow that obligations may trump good consequences in determining right action. Utilitarians who build their theories along these lines can treat deontology as a conceptually coherent position whose substantive claims are in fact not favored by evidence from any reliable processes. So they need not treat utilitarianism itself as a conceptual truth and run afoul of Moore's open question argument. If the argument from disagreement forces us to abandon belief in all other moral facts, introspecting pleasure's goodness and following these conceptual pro tanto connections to conclusions involving other moral concepts may be the only way to develop a full moral theory through reliable processes.

#### Thus, the standard is maximizing happiness. Prefer the standard:

#### 1. Ethical frameworks must be theoretically legitimate. Any standard is an interpretation of the word ought-thus framework is functionally a topicality argument about how to define the terms of the resolution. Definitions should be subject to theoretical contestation in the same way other words should be. My framework interprets ought as maximizing happiness. Prefer this definition:

#### A. Ground- every impact can function under my standard but other ethics exclude arguments and flow to one side- kills fairness since we both need arguments to win.

#### B. Topic lit- most articles are written through the lens of util because they’re crafted for policymakers and the general public who take consequences to be important, not philosophy majors. Key to fairness and education- the lit is where we do research and determines how we engage in the round.

#### C. Topic education- util forces us to read arguments about the impacts of the res in the real world and not get caught up in abstract ethics debates- key to education because we only have the topic for two months and need to learn about current events.

#### Fairness is a voter since debate is a competitive activity-no debater ought to have an advantage otherwise you’re picking the better cheater. Education is a voter since it’s why schools fund debate and also provides portable skills for the real world. This is a framework warrant, not a reason to drop the debater.

#### 2. No intent foresight distinction – by willing any action with knowledge that it could cause X harm, we necessarily intend X to happen because we could always decide not to act. Thus, means-based frameworks devolve to the aff.

#### 3. Actor specificity. Policymaking must be consequentialist since collective action results in conflicts that only util can resolve. Side constraints paralyze state action since policy makers have to consider tradeoffs between multiple people. States lack intentionality since they're composed of multiple individuals—there is no act-omission distinction for them since they create permissions and prohibitions in terms of policies so authorizing action could never be considered an omission since the state assumes culpability in regulating the public domain.

#### 4. Reductionism: personal identity doesn’t exist.

Olson Eric T. (Professor of Philosophy at the University of Sheffield) “Personal Identity” Stanford Encyclopedia of Philosophy Aug 20, 2002; substantive revision Oct 28, 2010 <http://plato.stanford.edu/entries/identity-personal/#PsyApp> JW

Whatever psychological continuity may amount to, a more serious worry for the Psychological Approach is that you could be psychologically continuous with two past or future people at once. **If your cerebrum**—the upper part of the brain largely responsible for mental features—**were transplanted, the recipient would be** psychologically continuous with **you** by anyone's lights (even if there would also be important psychological differences). The Psychological Approach implies that she would be you. If we destroyed one of your cerebral hemispheres, the resulting being would also be psychologically continuous with you. (Hemispherectomy—even the removal of the left hemisphere, which controls speech—is considered a drastic but acceptable treatment for otherwise-inoperable brain tumors: see Rigterink 1980.) What **if we** did both at once, **destroy**ing **one hemisphere and transplant**ing **the other**? Then too, **the one who got the transplant**ed hemisphere would be psychologically continuous with you, and according to the Psychological Approach **would be you.** But now **suppose** that **both hemispheres are transplanted, each into a different empty head.** (We needn't pretend, as some authors do, that the hemispheres are exactly alike.) **The two recipients**—call them Lefty and Righty—**will each be** psychologically continuous with **you.** The Psychological Approach as I have stated it implies that any future being who is psychologically continuous with you must be you. It follows that you are Lefty and also that you are Righty. **But that cannot be**: Lefty and Righty are two, and **one thing cannot be** numerically identical with **two things.** Suppose Lefty is hungry at a time when Righty isn't. If you are Lefty, you are hungry at that time. If you are Righty, you aren't. If you are Lefty and Righty, you are both hungry and not hungry at once: **a contradiction.**

#### This means consequentialism – moral theories can’t focus on individuals since there’s nothing that unifies them across time. Only states of affairs can have value.

#### 5. Determinism is true: our bodies are controlled by biological principles only – there’s no room for free will.

Drescher Gary L. (Visiting Fellow at the Center for Cognitive Studies at Tufts University, PhD in Computer Science from MIT) “Good and Real: Demystifying Paradoxes from Physics to Ethics” Bradford Books May 5th 2006

One prominent notion is that we have both a ghostlike component (our consciousness or soul) and a mechanical component (everything else, including our body). The mechanical component is governed by the usual physical laws. The ghostlike component, unconstrained by those laws, can be said to be extraphysical. That is, the ghostlike component is something in addition to the kinds of things that exist in the physical realm, something ontologically extra.1 This so-called dualist view was advanced by Descartes in the 1600s. Dualism is a tempting compromise, but an awkward one, for reasons that are well known. The problem is that the mechanical principles that govern each particle of our bodies (and of the things around us) already specify how each of those particles behaves, which in turn specifies how each of us behaves as a whole. But in that case, there is no room for the ghostlike component to have any influence—if it did so, it would have to make some of the particles sometimes violate the principles that all particles are always observed to obey whenever we check carefully. (Descartes was admirably precise about the locus of this supposed intervention—he proposed that the interface between the ghostlike component and the physical world occurs within the brain in the pineal gland.)2 Thus, we have the mind– body problem: how can we reconcile the nature of the mind with the mechanical nature of the body? Some see quantum-mechanical uncertainty as the wiggle room that could let a ghostlike consciousness nudge some of the particles in our body without violating the rules of physics. But in fact—even apart from the newer, deterministic interpretation of quantum mechanics discussed in chapter 4—any such nudging would at least constitute a change in the probability distribution for some of the particles in our body, and even that would break the (probabilistic) rules that particles always seem to obey. Granted, it could be the case that particles somewhere in our brains behave differently than particles ever do when we watch them carefully, violating otherwise exceptionless rules (be they deterministic or probabilistic rules). But since the rules are otherwise exceptionless (as far as we can tell), there should be a strong presumption that there’s no exception in our brains either—especially in view of the longstanding retreat of other beliefs about the alleged physically exceptional behavior of conscious or living organisms. The doctrine of vitalism, for instance, supposed that there is some distinctive ‘‘life force’’ that animates living things, enabling them to grow and move. But the more we learned of biochemistry—DNA and RNA, ATP energy cycles, neurotransmitters, and the like—the more we understood that the growth and movement of living things is explicable in terms of the same molecular building blocks, following the same exceptionless rules, as when those building blocks exist outside of animate objects. And the more we learn about computation and neuroscience, the more we discover how cognitive processes that were once supposed to require an ethereal spirit—perception, motor control, memory, spatial reasoning, even key aspects of more general reasoning (e.g., deduction, induction, planning)—can be implemented by basic switching elements (e.g., neurons or transistors) that need not themselves be conscious, or even animate. By monitoring brain activity, we can see different regions of the brain performing computations when different sorts of cognitive functions are performed (language, singing, spatial imaging, etc.). And when certain brain regions are damaged by injury or illness, the corresponding cognitive abilities degrade or vanish. To be sure, we are still far from understanding human cognition as a whole. But the trend in our knowledge does not lend comfort to the expectation that any particles in our brain will, at long last, ever be found to deviate sometimes from the same rules that such particles otherwise always obey.

#### Only consequentialism is consistent with determinism.

Greene and Cohen Joshua Greene and Jonathan Cohen (Department of Psychology, Center for the Study of Brain, Mind, and Behavior, Princeton University) “For the law, neuroscience changes nothing and everything” November 26th 2004 Phil.Trans.R.Soc.Lond.B (2004)359,1775–1785 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1693457/pdf/15590618.pdf> JW

The forward-looking–consequentialist approach to punishment works with all three responses to the problem of free will, including hard determinism. This is because consequentialists are not concerned with whether anyone is really innocent or guilty in some ultimate sense that might depend on people’s having free will, but only with the likely effects of punishment. (Of course, one might wonder what it means for a hard determinist to justify any sort of choice. We will return to this issue in x 8.) The retributivist approach, by contrast, is plausibly regarded as requiring free will and the rejection of hard determinism. Retributivists want to know whether the defendant truly deserves to be punished. Assuming one can deserve to be punished only for actions that are freely willed, hard determinism implies that no one really deserves to be punished. Thus, hard determinism combined with retributivism requires the elimination of all punishment, which does not seem reasonable. This leaves retributivists with two options: compatibilism and libertarianism. Libertarianism, for reasons given above, and despite its intuitive appeal, is scientifically suspect. At the very least, the law should not depend on it. It seems, then, that retributivism requires compatibilism. Accordingly, the standard legal account of punishment is compatibilist.

#### 6. Morality must be universalizable.

Pettit Phillip “Non-Consequentialism and Universalizability” The Philosophical Quarterly Vol. 50 No. 199 pp. 175-190 April 2000 JW

Every prescription as to what an agent ought to do should be capable of being universalized, so that it applies not just to that particular agent, and not just to that particular place or time or context, or whatever.7 So at any rate we generally assume in our moral reasoning. If we think that it is right for one agent in one circumstance to act in a certain way, but wrong for another, then we commit ourselves to there being some further descriptive difference between the two cases, in particular a difference of a non- particular or universal kind. Thus if we say that an agent A ought to choose option O in circumstances C – these may include the character of the agent, the behaviour of others, the sorts of consequences on offer, and the like – then we assume that something similar would hold for any similarly placed agent. We do not think that the particular identity of agent A is relevant to what A ought to do, any more than we think that the particular location or date is relevant to that issue. In making an assumption about what holds for any agent in C- type circumstances, of course, we may not be committing ourselves to anything of very general import. It may be, for all the universalizability constraint requires, that C-type circumstances are highly specific, so specific, indeed, that no other agent is ever likely to confront them.

#### Only consequentialism can be universalized.

Pettit 2 Phillip “Non-Consequentialism and Universalizability” The Philosophical Quarterly Vol. 50 No. 199 pp. 175-190 April 2000 JW

There is no difficulty in seeing how the universalizability challenge is supposed to be met under consequentialist doctrine. Suppose that I accept consequentialist doctrine and believe of an agent A that in A’s particular circumstances C, A ought to choose an option O. For simplicity, suppose that I am myself that agent and that as a believer in consequentialism I think of myself that I ought to do O in C. If that option really is right by my consequentialist lights, then that will be because of the neutral values that it promotes. But if those neutral values make O the right option for me in those circumstances, so they will make it the right option for any other agent in such circumstances. Thus I can readily square the prescription to which my belief in consequentialism leads with my belief in universalizability. I can happily universalize my self-prescription to a prescription for any arbitrary agent in similar circumstances. In passing, a comment on the form of the prescription that the universalizability challenge will force me to endorse. I need not think that it is right that in the relevant circumstances every agent do O; that suggests a commitment to a collective pattern of behaviour. I shall only be forced to think, in a person-by-person or distributive way, that for every agent it is right that in those circumstances he do O. Let doing O in C amount to swimming to the help of a child in trouble in the water. Universalizability would not force me to think that it is right that everyone swim to the help of a child in such a situation; there might be many people around, and, were they all to swim, then they would frustrate one another’s efforts. It only requires me to think, as we colloquially put it, that it is right that anyone swim to the help of the child: no one is exempt from this person-by-person non-collective prescription (even if all do face a collective requirement to decide who in particular is going to do the swimming).8 So much for the straightforward way in which consequentialism can make room for universalizability. But how is the universalizability challenge supposed to be met under non-consequentialist theories? According to non- consequentialist theory, the right choice for any agent is to instantiate a certain pattern P: this may be the pattern of conforming to the categorical imperative, manifesting virtue, respecting rights, honouring special obligations, or whatever. Suppose that I accept such a theory and that it leads me to say of an agent – again, let us suppose, myself – that I ought to choose O in these circumstances C, or that O is the right choice for me in these circumstances. Can I straightforwardly say, as I could under consequentialist doctrine, that just for the reasons that O is the right choice for me – in this case, that it involves instantiating pattern P – so it will be the right choice for any agent in C-type circumstances? I shall argue that there are difficulties in the path of such a straightforward response and that these raise a problem for non-consequentialism. III. A PROBLEM FOR NON-CONSEQUENTIALIST UNIVERSALIZATION Suppose I do say, in the straightforward way, that pattern P requires not just that I do O in C, but also, for any agent whatsoever, that that agent should do O in C as well. Suppose I say, in effect, that it is right for me to do O in C only if it would be right for any agent X to do O in C. Whatever makes it right that I do O in C makes it right, so the response goes, that any agent do O in C. This response, so I now want to argue, is going to lead me, as a non- consequentialist thinker, into trouble. Judging that an action is right involves approving of the deed and gives one a normative reason to prefer it. Imagine someone who said that he thought his doing something or other, or indeed another person’s doing something or other, was the right choice and who thereby communicated that he approved of it. Would it not raise a question as to whether he knew what he was saying if he went on to add that he did not think that there was any good reason for him to prefer that the action should take place rather than not? If the judgement of rightness is to play its distinctive role in ad- judicating or ranking actions – if it is to connect with approval in the stan- dard way – then, whether or not it actually motivates the person judging, it must be taken to provide him with a normative reason to prefer that the action should take place. When I think that it is right that I do O in C, therefore, I commit myself to there being a normative reason for me to prefer that I do O. And when I assert that it is right that anyone should do O in C-type circumstances, I commit myself – again because of the reason-giving force of the notion of rightness – to there being a normative reason for holding a broader preference. I commit myself to there being a normative reason for me to prefer, with any agent whatsoever, that in C-type circumstances that agent do O. The problem with these reasons and these commitments, however, is that they may come apart. For it is often going to be possible that, perversely, the best way for me to satisfy the preference that, for any arbitrary agent X, that agent do O in C-type circumstances, is to choose non-O myself in those circumstances.9 Choosing non-O myself means that there is one person – me – in respect of whom the general preference is not satisfied, but in the perverse circumstances it will mean that there are more agents or actions in respect of whom it is satisfied than there would be did I choose O. Perverse circumstances of this kind are not just abstract possibilities, for what an agent does can easily affect the incentives or opportunities of others in a way that generates perversity. The best way to get people to renounce violence may be to take it up oneself and threaten resistance to their violence; the best way to get people to help their children may be to proselytize and not pay due attention to one’s own. More generally, the best way to promote the instantiation of pattern P, where this is the basic pattern to which one swears non-consequentialist allegiance, may be to flout that pattern oneself.

### Inherency

#### Production of cold fusion has begun – NASA is developing commercial tech for widespread usage.

Anthony 13 Sebastian “NASA’s cold fusion tech could put a nuclear reactor in every home, car, and plane” ExtremeTech February 22nd 2013 <http://www.extremetech.com/extreme/149090-nasas-cold-fusion-tech-could-put-a-nuclear-reactor-in-every-home-car-and-plane> JW

The cold fusion dream lives on: NASA is developing cheap, clean, low-energy nuclear reaction (LENR) technology that could eventually see cars, planes, and homes powered by small, safe nuclear reactors. When we think of nuclear power, there are usually just two options: fission and fusion. Fission, which creates huge amounts of heat by splitting larger atoms into smaller atoms, is what currently powers every nuclear reactor on Earth. Fusion is the opposite, creating vast amounts of energy by fusing atoms of hydrogen together, but we’re still many years away from large-scale, commercial fusion reactors. (See: 500MW from half a gram of hydrogen: The hunt for fusion power heats up.) A nickel lattice soaking up hydrogen ions in a LENR reactorLENR is absolutely nothing like either fission or fusion. Where fission and fusion are underpinned by strong nuclear force, LENR harnesses power from weak nuclear force — but capturing this energy is difficult. So far, NASA’s best effort involves a nickel lattice and hydrogen ions. The hydrogen ions are sucked into the nickel lattice, and then the lattice is oscillated at a very high frequency (between 5 and 30 terahertz). This oscillation excites the nickel’s electrons, which are forced into the hydrogen ions (protons), forming slow-moving neutrons. The nickel immediately absorbs these neutrons, making it unstable. To regain its stability, the nickel strips a neutron of its electron so that it becomes a proton — a reaction that turns the nickel into copper and creates a lot of energy in the process. The key to LENR’s cleanliness and safety seems to be the slow-moving neutrons. Whereas fission creates fast neutrons (neutrons with energies over 1 megaelectron volt), LENR utilizes neutrons with an energy below 1eV — less than a millionth of the energy of a fast neutron. Whereas fast neutrons create one hell of a mess when they collide with the nuclei of other atoms, LENR’s slow neutrons don’t generate ionizing radiation or radioactive waste. It is because of this sedate gentility that LENR lends itself very well to vehicular and at-home nuclear reactors that provide both heat and electricity. According to NASA, 1% of the world’s nickel production could meet the world’s energy needs, at a quarter of the cost of coal. NASA also mentions, almost as an aside, that the lattice could be formed of carbon instead of nickel, with the nuclear reaction turning carbon into nitrogen. “You’re not sequestering carbon, you’re totally removing carbon from the system,” says Joseph Zawodny, a NASA scientist involved with the work on LENR. So why don’t we have LENR reactors yet? Just like fusion, it is proving hard to build a LENR system that produces more energy than the energy required to begin the reaction. In this case, NASA says that the 5-30THz frequency required to oscillate the nickel lattice is hard to efficiently produce. As we’ve reported over the last couple of years, though, strong advances are being made in the generation and control of terahertz radiation. Other labs outside of NASA are working on cold fusion and LENR, too: “Several labs have blown up studying LENR and windows have melted,” says NASA scientist Dennis Bushnell, proving that “when the conditions are ‘right’ prodigious amounts of energy can be produced and released.” I think it’s still fairly safe to say that the immediate future of power generation, and meeting humanity’s burgeoning energy needs, lies in fission and fusion (See: Nuclear power is our only hope.) But who knows: With LENR, maybe there’s hope for cold fusion yet.

#### Cold fusion technology is advancing rapidly.

NET 3/28 (New Energy Treasure) “Race to Commercialize Cold Fusion Is Afoot” March 18th 2016 <https://newenergytreasure.com/2016/03/18/race-to-commercialize-cold-fusion-is-afoot/> JW

There’s a tight race going on to commercialize Cold Fusion / LENR (Low Energy Nuclear Reactions) technologies. The two most prominent people involved are Randell Mills and Andrea Rossi, and it seems Rossi is the man in the lead. He’s made the most progress so far. He developed a device called an E-Cat (Energy Catalyzer), which converts electricity to heat at a minimum efficiency of 500%, or a COP (Coefficient of Performance) of 6. That is, 6 times more energy out than in. The first version of the E-Cat operated at low temperatures enough to turn water into steam, was made of stainless steel, had an external tank supplying hydrogen, and was surrounded by Lead. As the temperature rose, the lead would melt and reflect the X-radiation back, creating terahertz radiation which would in turn increase the efficiency of the system. The next version, the E-Cat HT (high temperature), operated at much higher temperatures of above 1 400°C. Enough to melt steel, so it was instead made of Alumina (a type of clay). It had a permanently sealed reaction chamber with powder fuel and therefore no external hydrogen feed. A 3rd party independent test of this unit was performed in 2014 by Professors from the University of Bologna in Italy. This test lasted a full 32 days. The entire test ran on only 1 gram of fuel and produced over 1.5 MWh of energy throughout the duration of the test, in a volume of only 0.063 liters. This represents an amazing power density of 1.6 GWh/kg. Even more amazing, the test was shut down before the 1 gram of fuel was even consumed. Theoretically, the fuel could last a year. A 1 MW plant was then created, comprised of numerous E-Cat HTs and was installed at a client’s premises for testing purposes. An independent ERV (Expert Responsible for Validation) monitored the system performance, power output vs input, and so forth. This ran for an entire year (350 days) without incident and ended on 17 February 2016. The ERV’s report is now being prepared and should be revealed in a month’s time. Progress did not end there, however. After the E-Cat HT, Andrea Rossi developed a more advanced version of the E-Cat, called the E-Cat X, that can directly produce light and electricity. Including ultraviolet radiation for purposes such as water purification. These units have the ability to output only electricity but with a slight trade off on efficiency. This is much like Fuel Cells, where a combination of heat and electricity in SOFCs (Solid Oxide Fuel Cells) has the highest efficiency. Rossi has managed to miniaturize the E-Cat X and called the small module an E-Cat Quark X. This small unit has only a 100 watt rating. However, 10 of these can be combined to form a 1 KW unit, and these 1 KW units can then be combined to form larger units up to GWs in capacity. Much the same as Lithium Ion batteries and Fuel Cells. He has said he’s about to announce some big news about the E-Cat Quark X. Big news arriving soon. There’s also the possibility of a low power E-Cat lamp made using metals like cesium or rubidium that melt at the temperature of the human body. The device would be switched on by simply grasping it in one hand for a few seconds until the nuclear reaction starts. Then you release it and the reaction will self-sustain, producing light for a few hours before needing another re-ignition by the same principle of holding it in your hand. To switch it off, just dip it in water. Cost of the cesium and rubidium might prove prohibitive but we shall see.

#### Cold fusion tech is real and being advanced every month. Soon it will be ready for commercial use.

Bailey and Borwein 15 David H. Bailey (Lawrence Berkeley National Lab (retired) and University of California, Davis) and Jonathan Borwein (Laureate Professor of Mathematics, University of Newcastle, Australia) “Cold Fusion Heats Up: Fusion Energy and LENR Update” The Huffington Post August 28th 2015 <http://www.huffingtonpost.com/david-h-bailey/post_10010_b_8052326.html> JW

Yet lately a few research teams at universities, national laboratories and private corporations are reporting notable progress, as we briefly reported in two earlier HuffPost articles (#1 and #2). Here is an update on these projects, plus another report that just appeared in the last few days. The U.S. aerospace firm Lockheed Martin plans to build a 100-megawatt nuclear fusion reactor only about 2 meters by 3 meters (seven feet by 10 feet) in size, i.e., small enough to fit on the back of a large truck. They claim that the first reactors of this design could be ready for commercial use in just ten years. Sadly, no technical details are yet available, and so the scientific community has no way of assessing the merits of their approach. The “new kid on the block” is Tri Alpha Energy, which has been pursuing a hot fusion reactor at a secretive facility in California. They have now reported constructing a prototype machine that can heat a plasma of hydrogen fuel to 10 million degrees Celsius, then confine it for 5 milliseconds. They employ what they call a “field-reversed configuration,” which has been known since the 1960s, but until now has never been able to confine the plasma more than a fraction of a millisecond. Another firm pursuing hot fusion is Energy/Matter Conversion Corporation in San Diego, California. Low Energy Nuclear Reaction (LENR) projects Most scientists believe that “cold fusion” died in 1989, when researchers were unable to reproduce the claims of Fleischmann and Pons of the University of Utah. At least one observer referred to cold fusion as the scientific fiasco of the [20th] century. Yet in spite of this criticism, a few researchers have pressed forward, and in the past year or two have attracted significant positive attention, referring to their work as “Low Energy Nuclear Reaction” (LENR) technology. One private firm in the area is Brillouin Energy Corp. of Berkeley, California, where researchers are developing what they term a controlled electron capture reaction (CECR) process. In their experiments, ordinary hydrogen is loaded into a nickel lattice, and then an electronic pulse is passed through the system, using a proprietary control system. They claim that their device converts H-1 (ordinary hydrogen) to H-2 (deuterium), then to H-3 (tritium) and H-4 (quatrium), which then decays to He-4 and releases energy. They report that they have confirmed H-3 production in their process. Additional technical details are given at the Brillouin Energy website, and in a patent application. Their patent application reads, in part, “Embodiments generate thermal energy by neutron generation, neutron capture, and subsequent transport of excess binding energy as useful heat for any application.” Rossi and Industrial Heat, LLC Perhaps the most startling (and most controversial) report is by an Italian-American engineer-entrepreneur named Andrea Rossi. Rossi claims that he has developed a tabletop reactor that produces heat by an as-yet-not-fully-understood LENR process. Rossi has gone well beyond laboratory demonstration; he claims that he and the private firm Industrial Heat, LLC of Raleigh, North Carolina, USA, have actually installed a working system at an (undisclosed) commercial customer’s site. According to Rossi and a handful of others who have observed the system in operation, it is producing 1 MWatt continuous net output power, in the form of heat, from a few grams of “fuel” in each of a set of modest-sized reactors in a network. The system has now been operating for approximately six months, as part of a one-year acceptance test. Rossi and IH LLC are in talks with Chinese firms for large-scale commercial manufacture. Several “reliable sources” have visited Rossi’s commercial site, and have verified that the system is working as claimed, as evidenced, for example, by the customer’s significantly reduced electric bills. On the downside, from a scientific point view, Rossi’s work leaves much to be desired, to say the least. Rossi remains tight-lipped as to technical details, preferring to protect his company’s intellectual property through silence. However, a few details have now come to light. For example, Rossi was just granted a patent by the U.S. Patent Office. The patent includes some heretofore unknown details, such as the contents of the “fuel” in Rossi’s reactors: it is a powder of 50% nickel, 20% lithium and 30% lithium aluminum hydride. Replications of Rossi’s work Given that Rossi has been unwilling to divulge many details, several other research teams have been working largely independently with similar experimental designs. In October 2014, a team of Italian and Swedish researchers released a paper entitled Observation of abundant heat production from a reactor device and of isotopic changes in the fuel. This paper claimed substantial power output, with a “coefficient of performance” (ratio of output heat to input power) of up to 3.6. The experiment was performed at an independent laboratory in Lugano, Switzerland. The most intriguing results in the 2014 Lugano paper are the before-and-after analyses of the “fuel,” which found an “isotopic shift” had occurred in this material. In particular, the team found that lithium-7 had changed into lithium-6, and that nickel-58 and nickel-60 had changed to nickel-62. This is based on two different types of mass spectrometry measurements, using state-of-the-art equipment. These changes can only be due to nuclear reactions of some sort — not conventional chemistry. The Lugano team is reportedly working on a new experiment, independent of Rossi, but as yet no details are known. Another research team performing Rossi-type experiments is headed by the Russian physicist Alexander Parkhomov. He and others working with him report observing excess heat with a Rossi-type reactor running at 1347 degrees Celsius, with a coefficient of performance of 3.0. They also report observing excess heat in at least ten other experiments of this type to date. Implications The present authors are as perplexed as anyone by these developments. As we observed in an earlier HuffPost article, Rossi’s work in particular leaves us with three stark choices: (a) Rossi and those working with him or independently have made some fundamental and far-reaching blunder in their experimental work; (b) Rossi is leading a conspiracy of sorts to cover dishonest scientific behavior; or (c) Rossi has made an important discovery with sweeping potential impact. With each passing month, and with more researchers finding similar results, (a) and (b) look less likely. On the other hand, skepticism is certainly still in order until Rossi comes forward with more details on the designs and control techniques used in his system.

### Plan Text

#### Resolved: countries ought to prohibit the production of Low Energy Nuclear Reactions technologies.

### Explosions Adv.

#### Cold fusion technology is a ticking time bomb – each reactor is functionally a mini-nuclear-weapon that will explode.

Smith 5/31 Jeff “The problem with Cold Fusion and How small can a nuclear reaction be?” Veterans Today May 31st 2016 <http://www.veteranstoday.com/2016/05/31/the-problem-with-cold-fusion-and-how-small-can-a-nuclear-reaction-be/> JW

How small can a nuclear reaction be? Through hydrodynamic experiments for triggering fusion, extremely low yield nuclear explosions have been generated on the magnitude of “several Pounds of TNT.” .018 kt was unveiled in 1961 and in 1996, the Tamalpais test with a yield of 0.072 kt was declassified: OPERATION HARDTACK II. HARDTACK II was the continental phase of Operation HARDTACK. The oceanic phase, HARDTACK I, was conducted in the Pacific from 28 April through 18 August 1958. Phase II, conducted at the Nevada Test Site from 12 September through 31 October 1958, consisted of 19 nuclear weapons tests and 18 safety experiments. Hardtack II This program produced the following information for a regular 0.01 kt yield, air ignition: Fireball max light radius = 25.4 meters, Max time light pulse width = 0.011 seconds, Max fireball air burst radius = 10.6 meters, Time of max temperature = 0.0032 seconds, Area of rad. exposure = 0.12 sq. miles; Blast wave Effects: Overpressure = 5 lb/sq. inch (160 mph) radius = 0.09 km, 1 lb/sq. inch radius = 0.26 km; Underground ignition: Crater diameter = 56 feet with a Richter magnitude of 3.52. note that this declassified video has been ‘sanitised’ and portions still classified (1997) were removed. Thermal radiation damage range is significantly reduced by clouds, smoke or other obscuring materials. Surface detonations are known to decrease thermal radiation by half. A neutron bomb produces much less blast and thermal energy than a fission bomb of the same yield by expending it’s energy by the increase in the production of neutrons. Even the older neutron bombs produced very little long-term fallout, but they made considerable induced radiation in ground detonations. The half-life of induced radiation is very short and is measured in days rather than years for a neutron bomb. According to the work of Walter Hermann Nernst, 1929, Zeitschrift magazine, Germany. “Hydrogen will dissolve into cretin metals as if the metal was acting like a dry sponge absorbing water.” (The cold fusion debate circa 1929). Walter Nernst (1864-1941) | Winner of the Nobel Prize in Chemistry in 1920 Walter Nernst (1864-1941) | Winner of the Nobel Prize in Chemistry in 1920. If Uranium is electrically charged with deuterium (a form of hydrogen) and it is properly dissolved into the metal. Beyond a certain point a critical threshold will occur and it will explode causing a controlled nuclear {fission-fusion} reaction. 1929……. This was known by the Germans in 1929. Bohr knew it too. This is why they stopped cold fusion. Mini-nukes……… If you place a uranium shield around an explosive core that is properly tampered and compress it, the radiation produced is no longer a secondary effect imposed by the need of a critical mass but it becomes a primary effect. These small new weapons have a very limited radiation effect so they load down the outer layer with extra uranium that increases the explosive effect. These new devices eliminate the need for a critical mass. (Ted Taylor, PHD, DOE) The Curve of Binding Energy. 1973. As you can see the concept of the mini nuke dates back to 1973 or even earlier. There is no more need to form a critical mass in order to make a small cheap nuclear weapon under 3kt. in blast effect. The problem with cold fusion is that all metals will absorb hydrogen, some much better than others. Uranium and other fissile materials will absorb it uncontrollably and at some point it will explode with a force greater than what a molecular explosive of the same mass will produce. This is the problem with cold fusion; runaway explosive force that cannot be stopped. It is not a matter of if but when. At first you get a simple catalytic reaction but once it reaches a critical threshold it will explode; you cannot stop the reaction from occurring and it can happen with any metal not just fissile material. This is the fundamental principle that takes place in a hydrogen bomb but on a much grander scale. The hydrogen plasma attacks the fissile material in a very rapid nuclear reaction, producing fusion on a grand scale. Cold fusion just does it on a much smaller scale. This is why it will never be commercially viable. You can never predict when it will go bang. It may be days, weeks, months or years but eventually it will go bang. Cold fusion is a ticking time bomb just waiting to go off and in some labs it has already. This is why DOE shut down all unauthorized research into it. Home-made Mini nukes. Most likely they will regulate the sale of deuterium next. You will need a license to have it. Keshe knows this stuff and it is the basis for his so-called ‘Magrav’ home reactor technology. Some old cold fusion experiments from 1920’s Germany cold fusion 2 Uranium filled Crooks/Geissler tube - German cold fusion experimentation in the 1920s Uranium filled Crooks/Geissler tube – German cold fusion experimentation in the 1920s This Uranium filled Crooks/Geissler tube was an early prototype of the so called Farnsworth Fussier of the early 1960’s that use electrostatic confinement and compression of the gas plasma. The Germans were playing around with this stuff back in the late 1920’s early 1930’s etc. When they used a uranium target and deuterium gas it threw off massive amounts of neutrons. So the Germans in certain ways were more advanced than their WW2 US counterparts. With the US team it was “how big can we make it”. But with the German’s restricted resources it was “how small can we make it”. Bohr even suggested this concept as the preferable route to making a weapon because implosion was too complex and plutonium production from reactors would be unnecessary for a small working weapon. As he said – how big does it need to be in order to be effective. Making an A bomb by means of forming a massive critical mass and imploding it was the hardest and crudest way of splitting the atom that I have ever seen. The German route was slower but from a pure physics stand point much more elegant and far simpler in it’s design. Being a hybrid fission fusion fission process it truly was the way to go. Now over 75 years later et voila – back to the future again. Now this is the route to modern weapons design and not critical mass implosion of the 1940’s. It’s funny how history repeats itself.

### Warming Adv.

#### When cold fusion tech becomes affordable and widespread, it will cause large increases in malaria and exacerbate the effects of climate change.

Gibbs 12 Mark (I've been in the IT industry since the time of the dinosaurs (ICL anyone?). I've written books about the Internet and networking, consulted for all sorts of companies, and been a contributor and columnist for Network World for 18 years (check out my Backspin and Gearhead columns). I created and co-founded Netratings (now wholly owned by Nielsen) and have CTO'ed for a couple of startups) “Cold Fusion and Unintended Consequences” Forbes November 20th 2012 <http://www.forbes.com/sites/markgibbs/2012/11/20/cold-fusion-and-unintended-consequences/2/#b23fcca402e4> JW

We might also assume that once the technology becomes understood (whether or not the physics are understood) countless companies will appear very quickly to capitalize on the enormous potential marketplace. Generators ranging from perhaps as small as a camping stove right up to gigawatt installations will appear all over the planet and probably do so with incredible speed. This is the kind of future of ubiquitous, cheap power that many of the cold fusion believers theorize is just around the corner. Could there be a downside to practical cold fusion? There is one big assumption that many of the cold fusion believers assume will be the case: That cold fusion won’t produce any radiation or other dangerous waste products (the worst case scenario would be radioactive waste). But even if there was just a some amount of waste compared to the huge energy gains, I suspect that people would demand to be able to use them. This wouldn’t be a problem initially if the amount of waste was small but what happens when there’s not just a few thousand or million cold fusion generators out there but rather several billion? Let’s say each CF device produces, on average, one picogram of waste per day and there are 5 billion CF generators then the entire planet would produce just over 1.8 grams of waste over the course of a year … should no problem there. But increase that to 1 milligram per device and, as a consequence, globally you’ll have just under 2,012 tons of waste per year to deal with, a not inconsiderable amount. And if it is significantly radioactive, that’s a really serious problem. But the spread of CF generators will not be something that can be controlled … if you’ll excuse the quip, once the E-Cat is out of the bag, there’s no putting it back in and we know well how fast technology can outpace legislation and regulation. Alright, let’s say that there is no hazardous waste, so what about heat waste? Every major city has is what is called an “urban heat island.” Wikipedia explains that a UHI is: … a metropolitan area which is significantly warmer than its surrounding rural areas. … The temperature difference usually is larger at night than during the day, and is most apparent when winds are weak. Seasonally, UHI is seen during both summer and winter. The main cause of the urban heat island is modification of the land surface by urban development which uses materials which effectively retain heat. Waste heat generated by energy usage is a secondary contributor. As a population center grows, it tends to expand its area, and increase in its average temperature. As will undoubtedly be the case, ultra-cheap CF generators will be engineered as casually, for example, as we engineer automobiles today (30% efficiency is about the maximum for a car engine). I doubt whether we’ll be more careful about waste heat from CF generators than we are from cars (and CF will could also power cars) and, more crucially, we’ll be less inclined to insulate buildings. We’ll also have heated sidewalks everywhere. Chilly buildings will be a thing of the past. As a consequence urban heat islands will become more pronounced and that will affect the ecology in and around cities (more rats, a longer growing season and therefore more plant growth, more pollen and therefore more allergies, greater impact on regional weather systems … ). But what about the impact on the desperately poor populations of the world? The transformative power of ultra-cheap energy would, in theory, be incredible and the demand to supply CF generators to China, Africa, Latin America, and Asia will be unstoppable. So, what might happen in this scenario? In many of these areas potable water is scarce but with virtually free energy, desalination by boiling becomes simple. But desalination without extensive engineering can create significant amounts of toxic waste. A consequence could be the creation of hundreds of thousands or millions of waste sites worldwide contaminated with heavy metals and very high salt and mineral levels. There’s also the heat island issue which comes into play with millions of small to medium size heated microclimates springing up around the world. Take an area that historically has had cold night and make them a few degrees warm all year long and in many areas mosquitos will become a bigger problem and diseases like malaria will become a bigger risk. In fact, the impact of billions of CF generators pumping petawatts of waste heat into the environment could have a profound impact on global climate change. Oh, and lights. If power is dirt cheap, people will tend to leave lights on all night long and thus darkness will become much rarer. That, in turn, will not only have severe ecological consequences, it will have profound consequences for human health.. So, while a future with limitless, ultra-cheap energy could transform the world not all of those transformation might be desirable and some could have profoundly dangerous consequences. When it comes to cold fusion the old adage of “be careful what you wish for” could well be good advice. The unintended consequences of practical cold fusion are simply not predictable and if there are any serious consequences at all, parachuting cats in won’t help one bit.

#### Malaria kills hundreds of thousands a year.

WHO 15 World Health Organization “10 facts on malaria” November 2015 <http://www.who.int/features/factfiles/malaria/en/> JW

About 3.2 billion people – nearly half of the world's population – are at risk of malaria. In 2015, there were roughly 214 million malaria cases and an estimated 438 000 malaria deaths. Increased prevention and control measures have led to a 60% reduction in malaria mortality rates globally since 2000. Sub-Saharan Africa continues to carry a disproportionately high share of the global malaria burden. In 2015, the region was home to 89% of malaria cases and 91% of malaria deaths.

#### Global warming causes more poverty and disease.

Bullard 15 Gabe (Gabe Bullard is a journalist who produces text and audio. He currently works at National Geographic. Gabe was a Nieman Fellow at Harvard University in the 2015 class. As a fellow, he studied many things, most of them related to history, culture, and journalism.) “See What Climate Change Means for the World’s Poor” National Geographic December 1st 2015 <http://news.nationalgeographic.com/2015/12/151201-datapoints-climate-change-poverty-agriculture/> JW

Climate change has been linked to increased frequency and intensity of destructive weather events, such as floods and hurricanes. But the effects of a warming planet on crops may pose an even greater danger, especially for the world’s poor, according to the World Bank. “Agriculture is one of the most important economic sectors in many poor countries,” says a report from the institution. “Unfortunately, it is also one of the most sensitive to climate change given its dependence on weather conditions, both directly and through climate-dependent stressors (pests, epidemics, and sea level rise).” The report focuses on developing economies and doesn’t include North America, Australia, or a handful of other areas. It sets up two scenarios to project the effects of climate change. The “prosperity scenario” is optimistic: It predicts strong economic growth, fewer people living in poverty, and improvements in basic services. The “poverty scenario” isn’t as hopeful: It predicts the number of impoverished people will grow from the current 702 million to around 900 million by 2030 without factoring in climate change. When climate change is part of the equation, more than a billion people will be in poverty. Most of that additional 100 million, the report says, will become poor due to rising food prices. Higher food prices can be devastating for the poor. Think about your own budget: How much do you spend on groceries relative to your entire paycheck, your rent or mortgage, or your phone bill? If you’re poor, you spend a higher percentage of your total income on food. In some regions, the poorest residents use more than 60 percent of their income to buy food while for the wealthiest, it’s less than 10 percent. Food prices would increase the most in these regions. To remedy this, the World Bank recommends preparing for climate change by “developing early warning systems and flood protection, and introducing heat-resistant crops.” There are health risks beyond malnutrition. Disease rates are expected to rise. World leaders are now meeting in Paris to negotiate plans to curb CO2 emissions in an effort to limit the global temperature increase to 2 degrees Celsius. The World Bank report says a small rise in temperatures “could increase the number of people at risk for malaria by up to 5 percent, or more than 150 million more people affected. Diarrhea would be more prevalent, and increased water scarcity would have an effect on water quality and hygiene.” Like rising food costs, these diseases would disproportionately affect people with lower incomes who pay more out of pocket for healthcare. Think of it this way: When you pay for medical treatment, how much do you pay in cash? Those in poorer countries pay more than half of their medical bills, while those in richer countries pay less than a quarter, with private insurance, government aid, and other forms of assistance paying for the rest.

### Underview

#### 1. Prefer a comparing worlds paradigm—the neg must prove proactive desirability of a competitive advocacy. Truth-testing gives the neg an infinite amount of NIBs-they can prove morality doesn’t exist, it’s inaccessible, or read multiple side constraint theories. If they have to prove desirability then they share assumptions with the aff which levels out the playing field, so it’s key to fairness.

#### 2. Aff gets 1AR theory- otherwise the neg can be infinitely abusive and there’s no way to check against this- meta theory also precedes the evaluation of initial theory shells because it determines whether or not I could engage in theory in the first place. 1AR theory is drop the debater- the 1ARs too short to be able to rectify abuse and adequately cover substance- you must be punished.

#### 3. Vote aff if I win a counter interp to neg theory: key to strategy – six minute 2NR can split its time on multiple issues and make it impossible for the 2AR to cover every issue – I need collapse as an option to give me a shot.

## Frontlines

### Saudi Arabia Adv.

#### Cold fusion tech is real and advancing – causes global oil shocks and Saudi Arabian economic collapse.

Bailey and Borwein 15 David H. Bailey (Lawrence Berkeley National Lab (retired) and University of California, Davis) and Jonathan Borwein (Laureate Professor of Mathematics, University of Newcastle, Australia) “Cold Fusion Heats Up: Fusion Energy and LENR Update” The Huffington Post August 28th 2015 <http://www.huffingtonpost.com/david-h-bailey/post_10010_b_8052326.html> JW

The world faces a grim future if we do not immediately rein in consumption of fossil fuels. Risks include rising sea levels, more frequent extreme temperatures, flooding, drought and conflicts among human societies. An eventual sea level rise of 6 meters now seems pretty much assured. Additionally, July 2015 is now officially the hottest single month in recorded history. In spite of these truly sobering developments, some are seeing rays of hope. Prices of solar photovoltaic panels have dropped considerably. Observers predicted in 2000 that wind-generated power worldwide would reach 30 GWatts by 2010; it exceeded 200 GWatts, and by 2014 it was 370 GWatts. These developments have led some, such as former U.S. Vice President Al Gore, to be cautiously optimistic. Nonetheless, there is still an enormous gap between current carbon consumption and where we need to be (some argue that we must zero out carbon emissions altogether, and soon). While solar photovoltaic and wind systems are a great boon for green energy, nonetheless they still are reliant on the whims of weather and geography. And as for battery systems, in spite of advances such as those reported by Elon Musk, they are far from being a practical means for utility-scale storage of electrical energy. Fusion energy? Against this backdrop, some have been taking another look at fusion energy, the energy that powers the sun. Fusion, unlike fission reactions used in conventional nuclear reactors, need not emit dangerous radiation, nor do they produce radioactive byproducts. Scientists have been feverishly working for decades to develop a practical way to contain this energy, which traditionally is thought to mean that we must confine some hydrogen (or deuterium) fuel, either in a “magnetic bottle” or by inertial confinement, then heat it to millions of degrees Celsius. Despite the expenditure, over sixty years, of billions of dollars and euros by large government-funded laboratories, this goal has proved highly elusive. Yet lately a few research teams at universities, national laboratories and private corporations are reporting notable progress, as we briefly reported in two earlier HuffPost articles (#1 and #2). Here is an update on these projects, plus another report that just appeared in the last few days. The U.S. aerospace firm Lockheed Martin plans to build a 100-megawatt nuclear fusion reactor only about 2 meters by 3 meters (seven feet by 10 feet) in size, i.e., small enough to fit on the back of a large truck. They claim that the first reactors of this design could be ready for commercial use in just ten years. Sadly, no technical details are yet available, and so the scientific community has no way of assessing the merits of their approach. The “new kid on the block” is Tri Alpha Energy, which has been pursuing a hot fusion reactor at a secretive facility in California. They have now reported constructing a prototype machine that can heat a plasma of hydrogen fuel to 10 million degrees Celsius, then confine it for 5 milliseconds. They employ what they call a “field-reversed configuration,” which has been known since the 1960s, but until now has never been able to confine the plasma more than a fraction of a millisecond. Another firm pursuing hot fusion is Energy/Matter Conversion Corporation in San Diego, California. Low Energy Nuclear Reaction (LENR) projects Most scientists believe that “cold fusion” died in 1989, when researchers were unable to reproduce the claims of Fleischmann and Pons of the University of Utah. At least one observer referred to cold fusion as the scientific fiasco of the [20th] century. Yet in spite of this criticism, a few researchers have pressed forward, and in the past year or two have attracted significant positive attention, referring to their work as “Low Energy Nuclear Reaction” (LENR) technology. One private firm in the area is Brillouin Energy Corp. of Berkeley, California, where researchers are developing what they term a controlled electron capture reaction (CECR) process. In their experiments, ordinary hydrogen is loaded into a nickel lattice, and then an electronic pulse is passed through the system, using a proprietary control system. They claim that their device converts H-1 (ordinary hydrogen) to H-2 (deuterium), then to H-3 (tritium) and H-4 (quatrium), which then decays to He-4 and releases energy. They report that they have confirmed H-3 production in their process. Additional technical details are given at the Brillouin Energy website, and in a patent application. Their patent application reads, in part, “Embodiments generate thermal energy by neutron generation, neutron capture, and subsequent transport of excess binding energy as useful heat for any application.” Rossi and Industrial Heat, LLC Perhaps the most startling (and most controversial) report is by an Italian-American engineer-entrepreneur named Andrea Rossi. Rossi claims that he has developed a tabletop reactor that produces heat by an as-yet-not-fully-understood LENR process. Rossi has gone well beyond laboratory demonstration; he claims that he and the private firm Industrial Heat, LLC of Raleigh, North Carolina, USA, have actually installed a working system at an (undisclosed) commercial customer’s site. According to Rossi and a handful of others who have observed the system in operation, it is producing 1 MWatt continuous net output power, in the form of heat, from a few grams of “fuel” in each of a set of modest-sized reactors in a network. The system has now been operating for approximately six months, as part of a one-year acceptance test. Rossi and IH LLC are in talks with Chinese firms for large-scale commercial manufacture. Several “reliable sources” have visited Rossi’s commercial site, and have verified that the system is working as claimed, as evidenced, for example, by the customer’s significantly reduced electric bills. On the downside, from a scientific point view, Rossi’s work leaves much to be desired, to say the least. Rossi remains tight-lipped as to technical details, preferring to protect his company’s intellectual property through silence. However, a few details have now come to light. For example, Rossi was just granted a patent by the U.S. Patent Office. The patent includes some heretofore unknown details, such as the contents of the “fuel” in Rossi’s reactors: it is a powder of 50% nickel, 20% lithium and 30% lithium aluminum hydride. Replications of Rossi’s work Given that Rossi has been unwilling to divulge many details, several other research teams have been working largely independently with similar experimental designs. In October 2014, a team of Italian and Swedish researchers released a paper entitled Observation of abundant heat production from a reactor device and of isotopic changes in the fuel. This paper claimed substantial power output, with a “coefficient of performance” (ratio of output heat to input power) of up to 3.6. The experiment was performed at an independent laboratory in Lugano, Switzerland. The most intriguing results in the 2014 Lugano paper are the before-and-after analyses of the “fuel,” which found an “isotopic shift” had occurred in this material. In particular, the team found that lithium-7 had changed into lithium-6, and that nickel-58 and nickel-60 had changed to nickel-62. This is based on two different types of mass spectrometry measurements, using state-of-the-art equipment. These changes can only be due to nuclear reactions of some sort — not conventional chemistry. The Lugano team is reportedly working on a new experiment, independent of Rossi, but as yet no details are known. Another research team performing Rossi-type experiments is headed by the Russian physicist Alexander Parkhomov. He and others working with him report observing excess heat with a Rossi-type reactor running at 1347 degrees Celsius, with a coefficient of performance of 3.0. They also report observing excess heat in at least ten other experiments of this type to date. Implications The present authors are as perplexed as anyone by these developments. As we observed in an earlier HuffPost article, Rossi’s work in particular leaves us with three stark choices: (a) Rossi and those working with him or independently have made some fundamental and far-reaching blunder in their experimental work; (b) Rossi is leading a conspiracy of sorts to cover dishonest scientific behavior; or (c) Rossi has made an important discovery with sweeping potential impact. With each passing month, and with more researchers finding similar results, (a) and (b) look less likely. On the other hand, skepticism is certainly still in order until Rossi comes forward with more details on the designs and control techniques used in his system. Needless to say, the stakes are very high, for any or all of these projects. Among the potential impacts are: An environmental windfall — enabling a dramatic and rapid conversion of existing coal- and gas-burning electric power plants to a “green” source with minimal fuel costs. Potential applications even in transportation, water purification, small businesses and homes. Most likely, a further dramatic drop in oil prices worldwide. Financial repercussions; according to a new recent report, at least one-half trillion dollars of bonds are at risk if oil prices drop further. Political repercussions; already Saudi Arabia is having great difficulty keeping its economy afloat with the current drop in oil prices and its own longer term goals. One way or the other, whether these effects are confirmed (and large commercial enterprises engage) or refuted, the next few months promise to make a very interesting chapter in the history of science. Hold on to your hats!

#### Saudi Arabia is fine now but a collapse would destroy the global economy and cause regional wars.

Karasik et al 8/10 Theodore Karasik and Joseph Cozza “What If Saudi Arabia Collapses?” Lobelog Foreign Policy August 10th 2016 <https://lobelog.com/what-if-the-state-of-saudi-arabia-collapses/> JW

Consequences for Region and the World The collapse of the Saudi state would have grave implications for the region and the world. As illustrated by Libya, Syria, and Yemen, state collapse creates a vacuum for radical jihadist groups to claim new territory. Currently, al-Qaeda in the Arabian Peninsula (AQAP) is pushing against the Saudi border with Yemen and the Islamic State (ISIS or IS) in Iraq and Syria poses a constant threat to the kingdom’s north. Thus, civil war, instability, and high levels of sectarian tension would likely be fertile ground for these groups to grow and expand their control, threaten the holy sites, and perpetuate regional instability. Washington’s national security establishment has expressed concerns about turmoil escalating in Saudi Arabia if MBS’s reform agenda fails to achieve its objectives. Some see the kingdom at a crossroads and fear that the kingdom’s collapse would benefit the Islamic State. Regarding MBS possibly becoming the next king, one anonymous Saudi expert told NBC News, “It’s him or it’s ISIS.” The July 4 attacks in three Saudi cities (Medina, Jeddah, and Qatif) underscored the significance of the militant Salafist-Jihadist threat not only to the country’s security but also Al Saud’s prestige and Islamic legitimacy as the Custodian of the Two Holy Mosques. The intended attack by IS adherents on the Prophet’s Mosque during the end of Ramadan signals the Islamic State’s intent to usurp the Al Saud much as the apocalyptic leader Juhayman al-Otaybi did when he seized the Grand Mosque in 1979. “This attack has made it very clear that ISIS does not seem to believe in any moral red lines whatsoever,” said Fahad Nazer, a leading expert on Saudi Arabia. “Even al-Qaeda, which is certainly brutal in its own right, has never targeted Muslims in their houses of worship. ISIS has done that repeatedly.” A civil war in the Arabian Peninsula would also challenge long-standing alliances. Instability, the threat to the holy cities, and the possibility of jihadist gains would encourage states with high stakes (Egypt, Jordan, Iran, Pakistan, U.S., etc.) to react. In fact, UAE officials have even made contingency plans for a potential state collapse in Saudi Arabia, a risk which none of the kingdom’s neighbors can afford to ignore. These states would certainly move to secure the holy sites and combat terror cells, but solving the civil war would be a massive challenge. There would be considerable pressure to support the Saud family, but supporting the Wahhabi religious establishment over a reform movement would cause domestic complications in some of these countries that resent the kingdom’s influence across the region. Pakistan, which has a “special bilateral relationship” with Saudi Arabia obligating their military to defend Mecca and Medina and protect Saudi Arabia’s territorial integrity, would face the most pressure to intervene militarily on behalf of the Saud government should turmoil intensify. The two nations have a long history of military and security cooperation, and there is little doubt that Pakistan would act to protect the Al Saud rulers. In addition, the Egyptian military is present in the northern border areas of Saudi Arabia helping to augment Pakistani forces supporting SANG and the Saudi border guard. Iran and Oil The geopolitical tsunami that would result from Saudi Arabia’s collapse would have enormous consequences regarding Iranian influence across the region. From Iraq to Lebanon, and from Yemen to Syria, the struggle on the part of hardline Sunni Islamists to counter Shi’ism and Iran’s reach would enter a new phase should Saudi Arabia cease to exist as a unified nation-state. It is not entirely clear how Iran would react to state-collapse in Saudi Arabia, especially considering instability in the region would present a security risk to shipping and trade in the Persian Gulf. Although Iran would likely avoid direct involvement in a conflict in the Arabian Peninsula, it would certainly attempt to capitalize on a regional power vacuum created by a diminished Saudi Arabia by consolidating its political and military influence in Yemen, Iraq, Syria, Eastern Saudi Arabia, and, if instability spreads, Shi’ite-majority Bahrain. Diminished oil output by its regional rival would also increase demand for Iranian oil, boosting their economy. There is also no clear Sunni successor state to check Iran’s regional influence. Egypt’s economy is too weak, and Jordan is surrounded on all sides by instability. Finally, Saudi Arabia as a failed state would send international markets into free fall. State collapse in Saudi Arabia would halt oil production, significantly increasing the price of oil and dramatically weakening global economies. Such an increase would spark a severe global economic crisis. The longer Saudi Arabia is destabilized, the more difficult it would be for the world to pull out of the crisis and recover. The socio-political ramifications of such an economic shock could be catastrophic and disastrous for both the region and the world. If the government faces large-scale demonstrations calling for social and political liberalization while facing tribal, familial, and religious elite abandonment, the result could be instability, civil war, and/or state collapse. Again this result is far from inevitable. The Saudis might be able to successfully implement the Vision 2030 reforms while ensuring elite and citizen support. The country must also be open to course corrections in the event of economic turmoil or elite resentment in order to prevent instability.

#### Extinction.

Bearden 2k Lt Col. Beardon, PhD, 2000 http://www.cheniere.org/correspondence/042500%20-%20modified.htm Lt. Col Thomas E. Bearden (retd.) PhD, MS (nuclear engineering), BS (mathematics - minor electronic engineering) Co-inventor - the 2002 Motionless Electromagnetic Generator - a replicated overunity EM generator Listed in Marquis' Who'sWho in America, 2004 The Tom Bearden Website From: Tom Bearden To: (Correspondent) Subj: Zero-Point Energy Date: Original Tue, 25 Apr 2000 12:36:29 -0500 Modified and somewhat updated Dec. 29, 2000

History bears out that desperate nations take desperate actions. Prior to the final economic collapse, the stress on nations will have increased the intensity and number of their conflicts, to the point where the arsenals of weapons of mass destruction (WMD) now possessed by some 25 nations, are almost certain to be released. As an example, suppose a starving North Korea {[7]} launches nuclear weapons upon Japan and South Korea, including U.S. forces there, in a spasmodic suicidal response. Or suppose a desperate China — whose long-range nuclear missiles (some) can reach the United States — attacks Taiwan. In addition to immediate responses, the mutual treaties involved in such scenarios will quickly draw other nations into the conflict, escalating it significantly. Strategic nuclear studies have shown for decades that, under such extreme stress conditions, once a few nukes are launched, adversaries and potential adversaries are then compelled to launch on perception of preparations by one's adversary. The real legacy of the MAD concept is this side of the MAD coin that is almost never discussed. Without effective defense, the only chance a nation has to survive at all is to launch immediate full-bore pre-emptive strikes and try to take out its perceived foes as rapidly and massively as possible. As the studies showed, rapid escalation to full WMD exchange occurs. Today, a great percent of the WMD arsenals that will be unleashed, are already on site within the United States itself {[8]}. The resulting great Armageddon will destroy civilization as we know it, and perhaps most of the biosphere, at least for many decades.

DA outweighs on probability- Saudi Arabia is on the path to the bomb and war with Iran- the perception of instability fuels conflict. Hannah[[1]](#footnote-1) ‘13

Pundits and policymakers are missing the big worry about the Obama administration's Iranian nuclear deal: its greatest impact is not ensuring that Iran doesn't get the bomb, but that the Saudis will.

Indeed, **the risk of arms race in the Middle East -- on a nuclear hair trigger** -- **just went up** rather dramatically. And it increasingly looks like **the** coming **Sunni-Shiite war will be nuclearized.**

Two aspects of the agreement, in particular, will consolidate Saudi fears that an Iranian bomb is now almost certainly coming to a theater near them. First, the pre-emptive concession that the comprehensive solution still to be negotiated will leave Iran with a permanent capability to enrich uranium -- the key component of any program to develop nuclear weapons. In the blink of an eye, and without adequate notice or explanation to key allies who believe their national existence hangs in the balance, the United States appears to have fatally compromised the long-standing, legally-binding requirements of at least five United Nations Security Council resolutions. If the Saudis needed any confirmation that last month's rejection of a Security Council seat was merited -- on grounds that U.S. retrenchment has rendered the organization not just irrelevant, but increasingly dangerous to the kingdom's core interests -- they just got it, in spades. Second, the agreement suggests that even the comprehensive solution will be time-limited. In other words, whatever restrictions are eventually imposed on Iran's nuclear program won't be permanent. The implication is quite clear: At a point in time still to be negotiated (three years, five, ten?) and long after the international sanctions regime has been dismantled, the Islamic Republic of Iran's nuclear program will be left unshackled, free to enjoy the same rights under the Non-Proliferation Treaty as any other member in good standing. That looks an awful lot like a license to one day build an industrial-size nuclear program, if Iran so chooses, with largely unlimited ability to enrich uranium and reprocess plutonium, a la Japan.

But of course **Iran** is not Japan -- a peaceful, stable democracy aligned with the West. It is a bloody-minded, terror-sponsoring, hegemony-seeking revisionist power that has serially violated its non-proliferation commitments and which **aims** **to** destroy Israel, drive America out of the Middle East, and **bring down the House of Saud**.Whether or not President Obama fully appreciates that distinction, the Saudis most definitely do.Of course, Saudi concerns extend well beyond the four corners of last week's agreement. **For Riyadh, Iran's march to**ward **the bomb is** only the most dangerous element -- **the *coup de grace*** in its expanding arsenal, if you will -- **of an** **ongoing**, region-wide **campaign to overturn the Middle East's existing order** in favor of one dominated by Tehran. **The** **destabilization** and weakening **of Saudi Arabia is** absolutely **central to that project**, and in Saudi eyes has been manifested in a systematic effort by Iran's Revolutionary Guard Corps (IRGC) to extend its influence and tentacles near and far, by sowing violence, sabotage, terror, and insurrection -- in Bahrain, Iraq, Lebanon, Yemen, and most destructively of all, in the IRGC's massive intervention to abet the slaughter in Syria and salvage the regime of Bashar al-Assad. Fairly or not, from the Saudi perspective, the nuclear deal not only ignores these central elements of the existential challenge that Iran poses to the kingdom's well-being, it threatens to greatly exacerbate them by elevating and legitimizing the Islamic Republic's claim to great power status. As surely as Obama's chemical weapons deal with Syria implicitly green-lighted the intensification of the Assad regime's murder machine, so, too, **the Saudis fear**, a nuclear deal with the mullahs will grant a free hand -- if not an implicit American imprimatur -- to **the** long-standing **Iranian quest for regional supremacy that**, to Saudi minds, **won't end until it reaches Mecca** and Medina.   It should be said that Saudi paranoia about being sacrificed on the altar of a U.S.-Iranian deal is nothing new. But the fact is that, today, the Saudis look around and believe they've got more reasons than ever before to think that they're largely on their own. As the saying goes, even paranoids have enemies. On one issue after another that they've deemed absolutely vital to their interests -- Bahrain, Egypt, Iraq, Syria, and now Iran -- the Saudis view the Obama administration as having been at best indifferent to their most urgent concerns, and at worst openly hostile. To Saudi minds, a very clear and dangerous pattern has now been conclusively established. And its defining characteristic is not pretty at all to behold: the selling out of longtime allies, even betrayal. Indeed, the Saudi listen to Prime Minister Benjamin Netanyahu rail against the Iran deal and realize that even Israel, by leaps and bounds America's foremost friend in the Middle East, is not immune. And they wonder where in the world does that leave them. How do you say "screwed" in Arabic? The crisis of confidence in the reliability, purposes, and competence of American power has reached an all-time high. The Saudis have taken due note of National Security Advisor Susan Rice's declaration that "[there's a whole world out there](http://www.nytimes.com/2013/10/27/world/middleeast/rice-offers-a-more-modest-strategy-for-mideast.html?_r=0" \t "_blank)" beyond the Middle East that needs attention, and her predecessor's lament that the United States had "[over-invested](http://www.usatoday.com/story/news/world/2013/08/15/us-egypt-policy-priorities/2662285/" \t "_blank)" in the region. **The kingdom has become** increasingly **convinced** that **there's a** method to Obama's madness, **a systematic effort to reduce America's** exposure and **involvement in the region**'s conflicts, to downsize Washington's role and leadership, to retrench and, yes, to retreat. Whatever the reason -- a weak and unprincipled president, a tired and fed up population, a broken economy and dysfunctional politics, growing energy independence (the Saudis cite all these and more) -- there's a growing conviction in Riyadh that the United States has run dangerously short of breath when it comes to standing by its allies in the Middle East. Obama wants out. Face-saving deals on issues like Syria and Iran that are designed not to resolve the region's most dangerous problems, but rather to defer them from exploding until he's safely out of office are the order of the day -- Saudi vital interests be damned ... or so they fear.   It must be noted that the breach in trust has become intensely personal. The Saudi dismay with Obama and his chief lieutenants is hard to overstate at this point. Secretary of State John Kerry in particular has become a target of derision. In the days immediately following the Assad regime's Aug. 21 chemical weapons attack, the phone calls between Kerry and senior Saudi leaders apparently ran fast and furious. Proof that Syria had smashed Obama's red line on chemical weapons was overwhelming, Kerry assured his interlocutors. A U.S. attack to punish the Assad regime was a sure thing. The Saudis were ecstatic, convinced that at long last Obama was prepared to get off the sidelines and decisively shift the conflict's trajectory in favor of the West and against Iran. Intelligence, war planning and targeting information were allegedly exchanged. Hints abound that the Saudis were ginned up not only to help finance the operation, but to participate actively with planes and bombs of their own. King Abdullah is rumored to have ordered relevant ministries to prepare to go to the Saudi equivalent of DEFCON 2, the level just short of war. Then, on Aug. 31, the Saudis turned on CNN, expecting to watch President Obama announce the imminent enforcement of his red-line -- only to see him flinch by handing the decision off to Congress. The Saudis were enraged, dumbfounded, and convinced that Kerry had deliberately deceived and misled them. Told that Kerry himself had been caught largely unaware by Obama's decision, the Saudis were hardly mollified. A liar or an irrelevancy? Either one was disastrous from their perspective. Unfortunately, the routine has repeated itself several times since -- on one issue after another considered critical to Saudi interests. Hence: Riyadh learned about the U.S.-Russia deal on Syria's chemical weapons from CNN. Riyadh learned about Obama's decision to suspend large chunks of military assistance to Egypt from CNN. And two weeks ago, Riyadh learned that the P5+1 was on the verge of signing an initial (and from its perspective, very bad) deal with Iran from CNN -- even though Kerry had just been in Saudi Arabia*earlier that week*in an effort to contain at least some of the fallout from the Syria fiasco. Instead, he ended up doubling down on the breach. Detailed revelations in recent days that for the better part of a year, the Obama administration has been [engaged](http://www.bostonglobe.com/news/nation/2013/11/26/john-kerry-developed-secret-dialogue-with-iran-through-oman/rRBZZ8aeDrsP2Q2HdoWJEJ/story.html" \t "_blank) in secret bilateral talks with Iran that it sought to keep hidden from its allies -- while merely adding detail to what the Saudis had already suspected from their own sources -- will no doubt only further stoke the kingdom's fears that the fix is in between Washington and the mullahs. An atmosphere this poisonous is dangerous, to say the least. The incentive for the Saudis to engage in all kinds of self-help that Washington would find less than beneficial, even destructive, is significant and rising. Driven into a corner, feeling largely abandoned by their traditional superpower patron, no one should doubt that the Saudis will do what they believe is necessary to ensure their survival. It would be a mistake to underestimate their capacity to deliver some very unpleasant surprises: from the groups they feel compelled to support in their escalating proxy war with Iran, to the price of oil, to their sponsorship (and bankrolling) of a much expanded regional role for Russia and China at America's expense. Convincing ourselves that the Saudis will bitch and moan, but in the end prove powerless to act in ways that harm key U.S. interests would be a very risky strategy. Which brings us to the question of the Saudi bomb. King **Abdullah** **has been unequivocal** with a series of high-level interlocutors going back several years: **If Iran gets the bomb, we get the bomb**. There's not much artifice to the man. He's been clear. He's been consistent. He's not known to bluff. And I believe him. Whether or not all the stories about the[longstanding arrangements](http://www.foreignpolicy.com/articles/2013/11/08/the_nuclear_handshake_saudi_arabia_pakistan)with the Pakistani nuclear program are true, there's enough of a link there that no one should be too shocked if we wake up next week, next month, or next year to discover that a small nuclear arsenal has suddenly shown up in the Saudi order of battle. If the prospect of an Israel-Iran nuclear standoff doesn't quite get your pulse to racing, how do you feel about adding a Saudi-Iran standoff to the mix? **Think of two nuclear powers** eyeball to eyeball **across the Strait of Hormuz -- with religious hatreds** boiling over, **ballistic missile** **flight times measured in minutes, and command and control protocols**, well, **less than robust**. Even short of a nuclear exchange, what do you think that would do to the price premium on a barrel of oil? Can anyone say "instant global recession"?

2. Collapse causes unrest in 9 countries and immediate shocks to the global economy, spurs terrorism and collapse of US hegemony- multiple specific scenarios for spillover. Riedel[[2]](#footnote-2) ‘13

Saudi Arabia is the world’s last absolute monarchy. Like Louis XIV,[King Abdullah has complete authority](http://www.thedailybeast.com/newsweek/2012/06/24/a-game-of-thrones-in-saudi-arabian-succession-plans.html)to do as he likes. But while a revolution in Saudi Arabia is still not likely, the Arab Awakening has made one possible for the first time, and it could come in President Obama’s second term.**Revolutionary change in the kingdom would be a disaster** for American interests across the board. Saudi Arabia is America’s oldest ally in the Middle East, a partnership that dates to 1945. The United States has no serious option for heading off a revolution if it is coming; we are already too deeply wedded to the kingdom. Obama should ensure the best possible intelligence is available to see a crisis coming and then try to ride the storm.Still , the kingdom of Saudi Arabia is a proven survivor. Two earlier Saudi kingdoms were defeated by the Ottoman Empire and eradicated. The Sauds came back. They survived a wave of revolutions against Arab monarchies in the 1950s and 1960s. A jihadist coup attempt in 1979 seized the Grand Mosque in Mecca but was crushed. Osama bin Laden and al Qaeda staged a four-year insurrection to topple the Sauds and failed less than a decade ago. Saudi al Qaeda cadres remain in the kingdom and next door in Yemen.Today the Arab Awakening presents the kingdom with its most severe test to date. The same demographic challenges that prompted revolution in Egypt and Yemen, a very young population and very high underemployment, apply in Saudi Arabia.[Extreme gender discrimination](http://www.thedailybeast.com/newsweek/2012/07/29/women-rise-up-in-saudi-arabia-the-rebellion-behind-the-veil.html), long-standing regional differences, and a restive Shia minority add to the explosive potential. In recognition of their vulnerability, the Saudi royals have spent more than $130 billion since the Arab Awakening began to try to buy off dissent at home. They have made cosmetic reforms to let women sit in a powerless consulting council.Abroad they have sent tanks and troops across the King Fahd Causeway to stifle revolution in Bahrain, brokered a political deal in Yemen to replace Ali Abdullah Salih with his deputy, and sought closer unity among the six Gulf Cooperation Council monarchies. They also have invited Jordan and Morocco to join the kings’ club. But they are pragmatists too and have backed revolutions in Libya and Syria that fight old enemies of the kingdom.If an awakening takes place in Saudi Arabia, it will probably look a lot like the revolutions in the other Arab states. Already demonstrations, peaceful and violent, have wracked the oil rich Eastern Province for more than a year. These are Shia protests and thus atypical of the rest of the kingdom. Shia dissidents in ARAMCO, the Saudi oil company, also have used cyberwarfare to attack its computer systems, crashing more than 30,000 work stations this August. They probably received Iranian help.Much more disturbing to the royals would be **protests in Sunni parts** of the kingdom. These **might start in** **the** so-called **Quran Belt** north of the capital, **where dissent is endemic,** or in the poor Asir province on the Yemeni border. Once they begin, **they could** **snowball and reach** the **major cities** of the Hejaz, including Jeddah, Mecca,[Taif](http://www.thedailybeast.com/articles/2013/01/14/nightmare-in-saudi-arabia-the-plight-of-foreign-migrant-workers.html), and Medina. The Saudi opposition has a vibrant information technology component that could ensure rapid communication of dissent within the kingdom and to the outside world.The critical defender of the regime would be **the National Guard**. Abdullah has spent his life building this Praetorian elite force. The United States has trained and equipped it with tens of billions in helicopters and armored vehicles. But the key unknown is whether the Guard will shoot on its brothers and sisters in the street. It **may fragment** **or** it may simply **refuse to suppress dissent** if it is largely peaceful, especially at the start.The succession issue adds another layer of complication. Every succession in the kingdom since its founder, Abdel Aziz bin Saud, died in 1953 has been to his brothers. King Abdullah and Crown Prince Salman are the end of the brood; only a couple of possible remaining half brothers are suitable. Both the king and crown prince are ill, and both are often unfit for duty. If Abdullah and/or Salman die as unrest begins—a real possibility—and a succession crisis ensues, then the kingdom could be even more vulnerable to revolution.As in other Arab revolutions, the opposition revolutionaries will not be united on anything except ousting the monarchy. There will be secular democrats but also al Qaeda elements in the opposition. Trying to pick and choose will be very difficult. The **unity** of the kingdom **could collapse as** the **Hejaz separates** from the rest, **the east falls to Shia, and the center becomes a jihadist stronghold**.For the United States, revolution in Saudi Arabia would be a game changer. While **the U.S. can live withou**t **Saudi oil, China, India, Japan, and Europe cannot**. **Any disruption** **in** Saudi **oil** exports—whether **due to unrest**, cyberattacks, **or a** new regime’s **decision to reduce exports** substantially—**will have a major impact on the global economy**. In addition, **the** CIA **war against al Qaeda is heavily dependent on the kingdom**: **Saudi** **intelligence** operations **foiled the last** two **attacks** **by a**l **Q**aeda in the **A**rabian **P**eninsula on the American homeland. **The U.S. military** training **mission** in the kingdom, founded in 1953, **is the largest of its kind** in the world. **The Saudis** also **have been** a **key** player **in containing Iran** for decades.**The other monarchs of Arabia**, meanwhile, **would be in jeopardy** if revolution comes to Saudi Arabia. The Sunni minority in **Bahrain could not last without Saudi money** and tanks. Despite all their money, **Qatar, Kuwait, and the U**nited **A**rab **E**mirates are city states that **would be unable to defend themselves** against a revolutionary regime in what had been the kingdom. **The Hashemite dynasty in Jordan would be at risk** as well **without Saudi** and Gulf **money and oil**. Only Oman is probably isolated and strong enough to endure.America has no serious options for effecting gradual reform in the kingdom. The Saudis fear, probably rightly, that real power sharing is impossible in an absolutist state. But we should plan very quietly for the worst. The intelligence community should be directed to make internal developments, not just counterterrorism, its top priority in the kingdom now. We cannot afford a surprise like Iran in 1978, and we need to know the players in the opposition, especially the Wahhabi clerics, in depth. This will be a formidable challenge, but it is essential to preparing for a very dark swan.

D. Impacts: Extinction. Hogan[[3]](#footnote-3)

In the fall of 1983, a group of scientists led by Carl Sagan introduced a new strain of apocalyptic discourse into the freeze debate: the rhetoric of nuclear winter. Simply stated, the theory of nuclear winter held that **even a small exchange** of nuclear weapons—on the order, perhaps, of 500 of the world’s 18,000 nuclear—**would throw so much** dirt, **soot,** and smoke **into the atmosphere that the earth would be plunged into** darkness and subfreezing temperatures, a **“winter” lasting long enough to create** “a real possibility of the **extinction** of the human species” Unlike doomsday scenarios that preceded it, **the theory of nuclear** weapons **winter was based upon “extensive scientific studies**,” and it had been “endorsed by a large number of scientists.”

### homeless cards

#### Cold fusion will kill biodiversity and cause malaria and disease.

Burgess 12 James (studied Business Management at the University of Nottingham. He has worked in property development, chartered surveying, marketing, law, and accounts) “What Happens IF Cold Fusion Does Become Reality?” November 23rd 2012 Oil Price <http://oilprice.com/Alternative-Energy/Nuclear-Power/What-Happens-IF-Cold-Fusion-Does-Become-Reality.html> JW

We are talking about years into the future, when cold fusion exists as a practical technology that can provide huge amounts of cheap electricity. Devices would cost little and provide populations around the world with abundant energy. In the future that we are imagining cold fusion devices will the ultimate source of energy and provide nearly all energy to humanity. We are talking about billions of cold fusion machines around the planet; from tiny personal devices, to giant gigawatt scale plants. x With such a large number of devices out there producing energy in all corners of the globe, any negative side effects, no matter how small, become multiplied greatly. Imagine it cold fusion devices are discovered to produce small amounts of radioactive waste. Due to the exceptionally low price of the energy they would still be highly popular, yet on a large scale that small amount of waste could become a big problem. Related Article: Rossi's Investors Talk about the Progress of his E-Cat Gibbs explains that if, on average across all cold fusion devices (from tiny personal units to giant grid-sized plants), radioactive waste was produced on a scale of “1 milligram per device, as a consequence, globally you’ll have just under 2,012 tons of waste per year to deal with, a not inconsiderable amount.” (Current nuclear power plants operating in the world today produce between 2,000 and 2,300 tons of waste a year.) In the article he also looks at the efficiency of the cold fusion devices, and the potential side effect of huge amounts of excess waste heat produced by the billions of units. He worries that cheap cold fusion generators will only work on a similar level of efficiency as current machines, such as car engines; typically around 30% efficiency, at the most. This means that each device will release most of the energy that it produces into its surroundings as waste heat. Then, given the fact that the energy will be so cheap and abundant, energy will be used far more than it is presently used, for example: buildings will never be chilly as it will not cost much to heat them up; people need never suffer the heat as air conditioning units could be run permanently; even such extravagancies as heating the side-walks in winter could become a reality. Related Article: Obama's Nuclear Power Plans This mass increase in energy usage will elevate the effect known as ‘urban heat islands’ to such an extent that local ecologies around the cities could be severely altered. Gibbs gives examples of: “more rats, a longer growing season and therefore more plant growth, more pollen and therefore more allergies, greater impact on regional weather systems.” Or, “take an area that historically has had cold night and make them a few degrees warm all year long and in many areas mosquitos will become a bigger problem and diseases like malaria will become a bigger risk.”

#### Cold fusion doesn’t have any waste. It destroys the oil market. This could be an aff arg, or a coal shift da thing for neg PIC

Atom Ecology 15 “COLD FUSION LENR POISED TO BE UNLEASHED AS A WEAPON OF ECONOMIC MASS DESTRUCTION” Atom Ecology February 22nd 2015 <http://atom-ecology.russgeorge.net/2015/02/22/cold-fusion-lenr-poised-to-be-unleashed/> JW

US Oil reserves in storage at the highest level in 80 years readied for spring clearance sale before it’s value deflates to a fraction of its cost. This massive ready reserve supply of oil, 425 million barrels and growing, valued at $50 billion dollars just months ago, now hangs like a giant economic sword of Damocles over global energy and petroleum markets. But the wild card that is also tipping the market is an entirely new source of energy. The US will soon begin to reduce its giant ready reserve which it must do as it has become the largest producer of oil in the world and the justification for the reserve supply has disappeared – when this happens oil prices will plummet even more. Likely this will happen as soon as the cold winter abates in the next couple of months. Watch to the spring clearance sales. The reserves must begin to be reduced less they become not merely unprofitable commodities given the cost to fill the reserves but truly stranded assets which may not be able to command a price worth their transport to market. Many world energy and oil experts are now forecasting oil prices may soon drop to $20 per barrel. World Oil Production and Average Price Historic oil prices do not support recent oil markets The picture of what is behind this collapse in the oil markets is surely more complex than many would like to have the public believe. The peaks in crude oil price in excess of $100/bbl as seen between 2008 and 2014 are far from being a historical norms. The early 2000’s were an era of bizarre gamed swings in global energy markets. Consumption of oil in rapidly growing China, the booming Eurozone and the heavily leveraged US financial energy and financial markets far exceeded production. In contrast during most of the past century, oil rarely cost more than $20-30/bbl, even during times of major crises. During the last 15 years pertrocracies have been rapaciously feasting on deviantly expensive energy leading to an insanity of national authoritarianism, industry and market corruption, and no shortage of international escapades. But this inside the oil patch explanation doesn’t quite fit the precipitous events of the past year in the oil game. Energy Game Wild Card The wild card that is complicating understanding of global energy supplies, especially oil and gas supplies, is now seen to be the rapidly developing COLD FUSION and LENR technologies. This Black Swan’s arrival in the world of oil has been recently warned of by Saudi Arabia’s Oil Minister. It’s now clear that since the 1989 announcement of cold fusion it has been the target of a near perfect smear campaign to keep the revolutionary energy source from competing with the oil cartels, their banksters, and political minions. But keeping such a remarkable scientific fact of Nature and its technological potential down could never last forever. It’s called “COLD fusion” because the reactions are observed to take place at temperatures ‘colder’ than that inside of the sun and stars, that is the blazing million+ degree environment of “HOT fusion”. Cold fusion can still be plenty hot certainly hot enough to heat water for ones bath and more. For example this recent cold fusion patent filed by Europes giant AIRBUS corporation reveals their designs for cold fusion engines and that they are not the schmucks the oil cartel energy industry bankster propaganda has made of so many. Italian design cold fusion megawatt power plant now running at US industrial site Italian design cold fusion megawatt power plant now running at US industrial site showing remarkably simple construction Today around the world small teams of engineers are building and demonstrating cold fusion energy six ways from sundown that yields energy from the fusion of hydrogen with NO dangerous or radioactive by-products. Cold fusion nuclear reactors capable of producing megawatts of power and replacing major power generation facilities are being hand-built by small teams of workers, 3-6 people, inside the space of a 20ft standard shipping container using components purchasable at any local hardware store. The hydrogen fuel comes from the hydrogen in H2O, that’s water. The energy produced is likely to be too cheap to meter, not that the price of the gadget will be free. The world’s richest men, including Bill Gates, are being reported on as they make pilgrimages to cold fusion research groups. Cold Fusion & LENR Now Open Source Technologies A key element for those who have worked so effectively and dutifully for the past 25 years suppressing and smearing cold fusion, also known as LENR (low energy nuclear reactions), is that they have driven the technology into becoming effectively open source technology. Hundreds of patent applications containing tens of thousands of claimed inventions have been steadfastly rejected by the US and other nations patent processes. The scientists and inventors behind those discoveries have inevitably been unable to keep secret their discoveries which having steadily leaked into the public domain make the field open source. Given the innate simplicity of the techniques and materials needed to produce cold fusion and the corrupt patent system forcing that know how into the open what big business always wants “technological intellectual property barriers to entry” by potential competitors has utterly evaporated. CFL\_fusion\_heating\_bulbs3 Compact Flourescent Cold Fusion To Warm Up To Costing Mere Pennies click to read more As a fundamental characteristic of nature, requiring technology no more complicated than Edison’s simple light bulb, and without patent barriers cold fusion and lenr are poised to be rapidly developed and deployed as the peoples power, clean, green, inexpensive with an infinite supply of essentially free fuel. steel\_smelt1 Steel smelting requires high temperatures easily provided by cold fusion Today just about any business with the knowledge to build a gas or electric hot water heater has the technological know how to build a cold fusion hot water heater, home furnace, and all manner of devices that might yield useful valuable heat where the cost of the fuel approaches zero. Very high temperature cold fusion/lenr devices are being demonstrated in Russia, Europe, and the USA that run at temperatures in excess of 1000 °C (1800° F). That’s easily hot enough to smelt iron into steel or perhaps power a jet engine certainly to provide hot water for your bath. Given that cold fusion energy produces no waste emissions save tiny amounts of helium it is perfectly suited as a generic plug and play replacement to fossil carbon fuels that have already spewed a first deadly dose of nearly a trillion tonnes of noxious global warming, ocean acidifying CO2 into the world’s air and oceans. The second additional trillion tonne deadly dose of CO2 for the planet that we’d be surely emitting in coming decades can now be rapidly averted. The USA has seen 2.3% a year economic growth since 2009, but the rest of world is fairing far worse. There is little chance for growth of oil consumption anytime soon. The OPEC cartel is bereft of its power to set the price of oil and to manipulate the global energy markets after 40 years of wielding such power. The US forecasts an increase this year their of oil production of 9.1 mln bpd by another 300,000 bpd. Other oil-producing nations, including those heavily dependent on oil petrocracies and some with more diversified economies are going crazy about losing their market share to the Americans and are increasing production as much as they can. This continued ‘race to zero’, started last year as the ‘US-Saudi price war’, will effectively take its heavy toll on crude valuation. In the US, gasoline prices are falling, having retreated by some 40% on average. Now, $2 and change buys a gallon of regular nationwide. Modern vehicles with better fuel economy are now all highly competitive and competitive Asian and European automobiles are going to find it hard to compete in the lucrative US auto market. Vending machine for buying gold bars in Middle East airport ‘Gold to go’ vending machine for buying gold bars in a Middle East airport departure hall With the now certain rapid introduction of simple hand built plug and play cold fusion energy technologies across the full spectrum of established energy systems the new economic reality is playing against oil. The single industry petrocracies who have been engaged in their crazed gaming and profiteering of the global oil markets for the last 10-15 years must prepare for the worst. Their windfall currency and gold reserves wont last forever – and that ill-gotten wealth will rapidly prove to be too little to keep their gold-plated lifestyles going along with providing basic necessities for their people. To study up on new world of peoples power energy, environment, and ecology (geekology) of cold fusion this blog, atom-ecology, provides a great starting point…. To learn more about similarly revolutionary peoples technology that can become the antidote for the first deadly dose of CO2 read how a penny for our planet can help do that job.

## AT: Spec Bad

#### Counter interp: the aff can specify a type of nuclear power if they defend all countries.

### Counter Interps

Counter interp: the aff may *only* read a plan that prohibits the production of low energy nuclear reactors. Solves 100% of limits—there’s only one aff to prep against under my interp. I meet.

Second counter interp: the aff can’t specify a country *except* for my aff. Solves most of your offense—all you need to prep is the normal topic plus my one aff with is a small increase in research burdens. I meet.

Third counter interp: the aff may read a plan that prohibits the production of low energy nuclear reactors. I meet. Net benefits:

1. Depth—spec lets us focus the debate on an implementable policy instead of spreading ourselves thin on every single type of power, key to education and outweighs breadth because it ensures we’re learning things and not glossing over educational details.

2. Stratskew—whole res means neg can PIC out of any country or power plant which kills fairness since you can scoop the aff. Also moots all of your interp since people still have to prep out specific countries for answering PICs which means the prep gets done either way.

3. Stable advocacy—without spec the aff can shift out of disads by saying specific harms don’t link to general principle—kills fairness since if arguments can be shifted the neg has no shot of winning. Outweighs textuality—there’s no point to having a debate about the topic if I can just shift.

### RVI

Give the aff an RVI on counter interps to T:

A. Reciprocity—otherwise the neg gets T and theory but the aff only gets theory, kills fairness since you have more outs to the ballot, that’s a structural skew that outweighs substantive abuse which can be overcome by better debating.

B. Timeskew—the 2ARs too short to prove I’m T and adequately cover substance in 3 minutes; effective 2NRs will split their time and make affirming impossible.

### Reject the Arg

Reject the argument on T—if they win I’ll defend whole res. A. Substantive education—theory layer goes away and we get to debate the aff advantages which still apply—outweighs since education is the only reason people join the debate. B. Aff strat—dropping the debater makes affirming impossible because there’s always some interp that the aff violates.

### Reasonability

Use reasonability on T with a brightline of the aff prohibiting use of nuclear power and cards in the literature. Picking a good aff makes me a better debater, not a cheater, you still have link and impact turn ground and generics which means you could have engaged, I’m in the direction of the topic at worst. Key to substantive education because there’s less unnecessary theory which trades off with topical debate. It’s not arbitrary since I have a justified brightline.

### AT: Textuality

1. Generic statements allow for specification of definite singulars, i.e. a specific group.

Leslie Sarah Jane Leslie (Professor of Linguistics at Princeton University) “Generics” https://www.princeton.edu/~sjleslie/RoutledgeEncyclopediaEntry2.pdf

**Generics are statements such as “dogs are mammals”**, “a tiger is striped”, “the dodo is extinct”, “ducks lay eggs”, and “mosquitoes carry the West Nile virus”. Generic statements **[they] express general claims about kinds, rather than claims about particular individuals. Unlike** other general **statements such as** “all dogs are mammals” or **“most tigers are striped”, generics do not involve the use of** explicit **quantifiers** (**such as “all” or “most”** in these examples). In English, **generics can be expressed using a variety of syntactic forms: bare plurals** **(e.g. “ducks lay eggs**”), **[or]** indefinite singulars (e.g. “a tiger is striped”), and **definite singulars [e.g.]** (“**the dog is a mammal**”). (Sometimes, **habitual statements** **such as** “Mary smokes” or “**John runs in the park**” **are classified generics**, but we will not follow this practice here.)

Prefer my definition-it’s from someone qualified in the field of grammar and literature who explicitly states that general statements allow for further specification, means it’s the most contextual and thus most likely correct. Nebel is no linguistics professor.

2. Textuality assumes truth testing – that the aff’s burden is to prove the resolution’s true. Instead, the plan is the starting point for the debate. Otherwise, neg gets unfair strategies like skep and NIBs which give you a structural advantage—comparing worlds solves since the burdens 1 to 1.

3. My counter interp proves straying slightly from the text is good. We should use the topic as a starting off point to do more nuanced research. The only reason why text is important is for fairness and education which means I get to weigh my internal links.

4. Adhering strictly to the resolution text doesn’t produce good debates—resolutions are written by traditional old lay coaches—modifying it is key to national circuit competition.

5. Fairness and education are the only way to weigh between grammatical interpretations of the topic—nuclear power could also mean states that have nukes which would be a completely plausible interp under the semantic view, but is wrong for pragmatic reasons.

6. The semantics first approach is racist.

Niemi 15 Rebar Niemi (debate coach) “Mr. Nebel’s neighborhood, OR Nebel Tea – I sip it.” Premier Debate Today September 22nd 2015 <http://premierdebatetoday.com/2015/09/22/nebel-t-i-sip-it/> JW

Though I believe Mr. Nebel to be fundamentally wrong on the debate theoretical level, I have a more serious objection. I will make this claim in the strongest terms I possibly can. Correctness is racism. Correctness is “you must be either a boy or a girl or you are wrong.” Correctness is “the ideal functioning body versus all others.” Correctness is one kind of person having access to The Truth and others lacking it. Correctness is “sit down and shut up.” Correctness is “your kind aren’t welcome here.” Any debater who runs so called “Nebel T” and any judge who votes for this argument must acknowledge that they are situationally and strategically embracing a perspective from which there is an implicit or explicit metric of what it means to be a competent english speaker. What is the logical conclusion of speaking competent english? The notion that “mongrel” forms of English [is] are inferior, diminished, unpersuasive, and should not have access to the ballot. Quite possibly the notion that those who can’t live up to these standards should not be involved in debate. After all, their dialects are not what resolutions are written in – it is people like Mr. Nebel whose dialect prescribes correct resolutional meaning. You may say that “competent speakers” was a rhetorical flourish, I am nitpicking, and that Mr. Nebel should certainly be allowed to take back his offensive speech. I will say this: the competent english speaker, aka the correct type of thinking and being, is the fundamental goal and top-level value that Mr. Nebel appeals to throughout his articles. If this is “not what he meant” then he did not mean that debaters should pay any attention to nor follow his logic. Either he defends correctness or he concedes the irrelevance and negative impacts to fairness and education of his position. Nebel may appeal to pragmatics as a way out of the appeal to correctness, but in fact, his pragmatic claims are a pragmatic justification for correctness. This concedes pragmatics first anyway, and that so to speak, is a flow I can win on. It is my opinion that there is no in or out of round benefit that correctness could provide sufficient to outweigh the toxicity of its implementation and rhetorical methodology. Conclusion: Your generic is someone else’s oppressor In one sense we should be thankful that Mr. Nebel has let the cat out of the bag: T arguments from the perspective of correctness have always been the vehicle for racism and exclusion of all sorts. I cannot imagine a construction of competent english or correct grammar that is not racialized, gendered, and further influenced by its origins. To me it is impossible to endorse the claim to correctness without conceding that one is invested in a justification of domination (of course they won’t call it that) stretching across axes of class, race, gender, flesh, and cultural origin. The one place where Mr. Nebel speaks to this question, he dismisses it by claiming that specific examples are insufficient to deal with the bare plurality of his arguments. Mr. Nebel is kind to differentiate for us that there is “generic” or “competent” english, and that is its own dialect, where as these other dialects or ways of speaking are simply different uncomparable dialects. This truly tests my credulity. Are higher pitched so-called “feminine” voices less competent speakers of english? Are those who have read words in books but never heard them pronounced due to lack of high-grade prep school educations less competent? What about those who speak in accents, vernaculars, or dialects of english? For that matter, what about overlaps and points of connection between those ways of speaking and “generic english?” We can easily assume what Mr. Nebel thinks about speech impediments, or those who are unfamiliar with formal usage of grammar. Perhaps even run on sentences disqualify one from being a competent english speaker? Or an overabundance of rhetorical questions? Does anyone have memorized the full and formal set of rules for speaking competent or proper english? Does anyone actually trust that all those rules aren’t implicitly ideological? It is hard to believe that Mr. Nebel is blind to the values he endorses. Perhaps we should accurately hold him to them.

### AT: Jurisdiction

1. The tournament rules don’t say you have to evaluate the resolution—they say you have to pick the better debater. That means fairness precedes because it determines who’s the best.

2. Jurisdiction empirically denied—judges vote on non topical affs all the time.

### AT: Ground

1. Side bias impact turns—more aff ground’s good since it compensates for short 1AR and neg reactivity that make it harder to affirm.

2. Generics solve—phil NCs, Ks, and reasons why nuclear power is good all link to the aff.

3. T-the fact that the plan isn’t happening now proves you have qualitative ground.

*4. [Explain the ground against your aff]*

### AT: Limits

1. T-not defending one country is more unpredictable because the aff could pick any permutation of multiple countries which makes thousands of possible plans. Defending only one creates a limited caselist.

2. T-the whole res is unpredictable based on the topic lit. No solvency advocates talk about international rejection of nuclear power—they refer to it on a country by country basis.

3. Disclosure solves—plan text was on the wiki which means you could have done pre.

4. Lit solves—cards about my aff are available. Do better research.

5. T-whole res overlimits because there’s only one topical aff—gives me no strategic leeway for crafting cases and ensures neg wins every time.

6. Generics solve—they still link to the aff and let us have a debate.

### AT: Breadth

1. T-plans are key to breadth—they let us explore different areas of the topic instead of focusing on the same aff every round.

2. Not everyone reads plans—other rounds solve.

3. Depth is more important—spreading ourselves thin on many issues can be done with articles—only nuanced debates with specific evidence comparison about one policy are educational.

1. JOHN HANNAH , “[Fear and Loathing in the Kingdom](http://www.foreignpolicy.com/articles/2013/11/29/iran_saudi_arabia_nuclear_war_obama)”. Foreign Policy, Online, NOVEMBER 29, 2013.<http://www.foreignpolicy.com/articles/2013/11/29/iran_saudi_arabia_nuclear_war_obama>. RP 3/9/14 [↑](#footnote-ref-1)
2. Bruce Riedel, “Revolution in the Kingdom of Saudi Arabia?”. The Daily Beast, January 20, 2013. Quals: Bruce Riedel is director of Brookings new Intelligence Project. He has served as an adviser in the White House to the last four presidents. <http://www.thedailybeast.com/articles/2013/01/20/revolution-in-the-kingdom-of-saudi-arabia.html>. RP 3/9/14 [↑](#footnote-ref-2)
3. 1] Michael Hogan, The Nuclear Freeze Campaign, 1994, p. 52 [↑](#footnote-ref-3)